DOCUMENT RESUME

ED 208 067	TM 810 857
TITLE	Teaching and Testing Our Basic Skills Objectives. Pilot Edition.
INSTITUTION	Instructional Objectives Exchange, Los Angeles, Calif.; South Carolina State Dept. of Education, Columbia. Office of General Education.; South Carolina State Dept. of Education, Columbia. Office of Research.
PUB DATE	[81]
NOTE	317p.
EDRS PRICE	MF01/PC13 Plus Postage.
DESCRIPTORS	*Basic Skills; Educational Objectives; Elementary Education; *Elementary School Mathematics; *Instructional Improvement; *Minimum Competency Testing; *Reading Skills; State Programs; Testing Programs
IDENTIFIERS	*South Carolina Basic Skills Assessment Program

8

ABSTRACT

This pilot edition provides current information to local educators on the Spring 1981 Basic Skills Tests. Input forms are included as a means of obtaining information from district level curriculum coordinators and teachers on the utility of this guide. The guide is designed to be a tool for curriculum and instructional development consistent with assessment of the state objectives in reading and mathematics. A summary of how each objective is tested is provided, including how this information can be translated into activities for teaching basic skills. Although the actual Basic Skills Assessment Program (BSAP) testing is limited to grades 1, 2, 3, 6, and 8, continuous local assessment of grades K through 12 is part of the BSAP. Information in this guide is divided into Reading and Mathematics, and subdivided by objective. (Author/GK)

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Teaching and Testing Our Basic Skills Objectives

PILOT EDITION

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BASIC SKILLS
ASSESSMENT
PROGRAM

**South Carolina Department of Education:
An Equal Opportunity Agency
Charlie G. Williams, State Superintendent**

TEACHING AND TESTING OUR BASIC SKILLS OBJECTIVES

PILOT EDITION

This guide is not the format that will be used in the final edition. The primary purposes of this edition are (1) to provide current information to local educators on the Spring, 1981, Basic Skills Tests and (2) to obtain input from district level curriculum coordinators and teachers on the utility of this guide. PLEASE USE THE PERFORATED FORM ON THE NEXT PAGE TO PROVIDE INPUT TO THE DEPARTMENT.

A second printing of this guide in a format that is more appropriate for classroom use will be undertaken after receipt of local input. Enough copies will be printed so that a copy will be readily accessible to every teacher in Grades 1-8.

Prepared by

Educational Assessment Section
Office of Research

Curriculum Development Section
Office of General Education

in cooperation with

Instructional Objectives Exchange
Los Angeles, California

South Carolina Department of Education:
An Equal Opportunity Employer
Charlie G. Williams, State Superintendent

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Columbia, SC 29201
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Telephone: 758-8610

SURVEY FORM

Teaching and Testing Our Basic Skills Objectives

Directions: The purpose of this form is to obtain local input on the utility of this resource manual. In order to make any necessary revisions, the Department needs all comments no later than March 30, 1981. Identifying information will be kept confidential. Such information will be used for further input and clarification purposes only.

In order to obtain as much input as possible, you may have several individuals, in a similar job position, e.g., teachers, review the manual and then have a meeting to complete this form.

1. What is your position in the district?

    ___ Teacher
    ___ School/Curriculum Supervisor
    ___ District Curriculum Coordinator
    ___ Test Coordinator
    ___ Other. Specify Position: ______________________

2. If this form is used by a group in the position type indicated in Question 1, specify the number of persons completing the form: ___

3. Rate each section below in terms of how useful it is for your purposes. For example, if you feel that skill level placement charts are very useful circle the number "4". If any of the following sections need further clarification or explanation in order to be useful for your purposes, please comment.

    (Ratings: 4 = very useful, 3 = moderately useful, 2 = somewhat useful, 1 = useless)

Rate	Section
1 2 3 4	Skill Grade-Level Placement Charts. ("What Skills Are Tested"). Comments: ______________________
1 2 3 4	Summary Charts for Keys to Skill Difficulty. ("How Skills Are Tested"). Comments: ______________________
1 2 3 4	Sample Test Items and Directions. ("How Skills Are Tested"). Comments: ______________________
1 2 3 4	Additional Related Skills. ("What Some Instructional Considerations Are"). Comments: ______________________
1 2 3 4	Ideas for Instructional Activities. ("What Activities Might Be Developed"). Comments: ______________________

4. Which of the following formats do you prefer?

    ___ Loose leaf notebook style, three-hole punched sheets, with index tabs subdividing each reading and mathematics objective section. (Department may not be able to finance binders.)

    ___ Separate books, one for reading, one for math, spiral bound, with color coding. If you select this option, how should books be color-coded:
        ___ by objective only (one color per objective)
        ___ by grade only (one color per grade level)

    ___ Other. Please explain. ______________________

SDE Form: SDE 33-112-00 (This form becomes obsolete 6/30/81)

5. The intent is for each teacher to have information on a range of grade levels. Check the grade range for which you feel the information on teaching and testing is necessary at each grade level.

	Could Use Information on:
Grade 1 Teacher:	___ Grades 1-3 ___ All Grades
Grade 2 Teacher:	___ Grades 1-3 ___ All Grades
Grade 3 Teacher:	___ Grades 1-3 ___ Grades 2, 3, & 6 ___ All Grades
Grade 4 Teacher:	___ Grades 3 & 6 ___ All Grades
Grade 5 Teacher:	___ Grades 3 & 6 ___ All Grades
Grade 6 Teacher:	___ Grades 3, 6, & 8 ___ Grades 6 & 8 ___ All Grades
Grade 7 Teacher:	___ Grades 6 & 8 ___ All Grades
Grade 8 Teacher:	___ Grades 6 & 8 ___ All Grades
Grade 9 Teacher:	___ Grades 6 & 8 ___ All Grades

6. Would information of the type provided for Grades 1, 2, 3, 6, and 8 also be useful for Grades 4, 5, and 7?
___ No.
___ Yes.

7. Does the Department need to hold an in-service on this resource guide?

___ No.
___ Yes. If so, please describe the kind of in-service and designate who from your school or district should participate.
____
____
____
____

8. How many copies are needed? Place "1" by your first choice and "2" by your second choice.

___ One complete copy per school
___ One complete copy for every 3 teachers
___ One complete copy for every 2 teachers
___ One complete copy (of appropriate grade ranges) for every teacher

9. If you have any original activities on basic skills that could be added to this resource guide, please enclose them. Specify the objective and grade level to which the activitiy applies, along with a credit to the person who developed the activity.

10. Please feel free to attach any general comments.

WHAT YOU SHOULD KNOW ABOUT THE BSAP

In 1978, South Carolina's Legislature established the South Carolina Basic Skills Assessment Program (BSAP) which features the following:

BASIC SKILLS OBJECTIVES

In mid-1979, the South Carolina Statewide Objectives, Grades K-12, were approved by the State Board of Education. These objectives were originally compiled from locally developed curriculum guides and, subsequently, underwent revision based on local and public input. Our objectives are not minimal skills, as is the case in many states. Rather, our skills are basic skills that encompass a range of difficulty. These objectives were purposefully designed to be global in nature so that teachers would have a limited set of key instructional targets. Furthermore, such objectives can be more easily merged with local programs than a large number of highly specific objectives.

BASIC SKILLS TESTS

Furthermore, the legislation mandated basic skills testing based on the statewide objectives. First grade readiness testing began in 1979. Testing in Grades 1, 2, 3, 6, and 8 begins in Spring, 1981, while testing in Grade 11 begins in Spring, 1982. Because the objectives were very general, the objectives had to be defined further in order to be tested. How the objectives were defined for test development in Grade, 1, 2, 3, 6, and 8 is given in this resource.

INSTRUCTIONAL IMPROVEMENT

THE BSAP is not just a testing program. Rather, it is a total program that includes instructional improvement as its primary goal for Grades K-12. Students who do not attain minimal scores on the tests must be provided instruction in basic skills. Thus, the major purpose of the tests is to find out what students can do relative to South Carolina's basic skills so that instructional needs can be identified.

HOW TO USE THIS GUIDE

PURPOSE

As a result of the BSAP, a substantial contribution to education in South Carolina will be that of instructional improvement. A cornerstone of the instructional improvement strategy is the clarity with which the State Objectives are being communicated to the State's educators within this resource. In this guide, key features of the basic skills tests are also being communicated to teachers. The purpose of this guide is to provide educators - primarily, local level administrators and teachers - with a tool for curriculum and instructional development that is consistent with assessment of the State Objectives in Reading and Mathematics. This guide provides a summary of how each objective is tested and how this information can be translated into activities for teaching basic skills.

The intent of this guide is not to limit the curriculum but rather to focus on that part of the curriculum which is reflected in the State Basic Skills Objectives for Grades 1, 2, 3, 6, and 8. Although the actual BSAP testing is limited to Grades 1, 2, 3, 6, and 8, continuous local assessment of all Grades K-12 is a part of the BSAP.

ORGANIZATION OF THIS GUIDE

The information in this resource is divided into the two major areas of Reading and Mathematics with each of the major areas further subdivided by objective:

Reading

Decoding and Word Meaning
Details
Main Idea
Reference Usage
Inference
Analysis of Literature

Mathematics

Concepts
Operations
Measurement
Geometry
Problem Solving

ORGANIZATION OF THIS GUIDE (continued)

The pages in the Reading Section are numbered R-1, R-2, R-3, etc.. The pages in the Mathematics Section are numbered M-1, M-2, M-3, etc..

A complete set of the objectives is contained in the publication, State Objectives, Reading, Writing, and Mathematics, Grades K-12, the South Carolina Department of Education, September, 1980.

The six Reading Objectives and the five Mathematics Objectives are each further divided into five sections.

1. "What Skills Are Tested and Where"

   -defines the subskills tested for the objective and the grade levels at which these subskills are tested (not all subskills are tested at every grade level)

2. "How Skills Are Tested"

   -first gives an overview and the instructional emphasis of the test items for the particular objectives across Grades 1, 2, 3, 6, and 8 ["Summary Chart(s) for Keys to Skill Difficulty" can be found here]

   -then gives examples of the test directions and test items by grade level for each skill tested

3. "What Some Instructional Considerations Are"

   -describes some other skills (in addition to subkills tested) that will help students attain the overall basic skill objective

4. "Whats Activities Might Be Developed"

   -suggests, but does not prescribe, some instructional activities for various skills related to the objective, for early grades and later grades

5. "Content Supplement"

   -contains additional eligible testing content by grade level for appropriate skill areas, as needed

IMPORTANT FEATURES OF THIS GUIDE

Summary Chart(s) for Keys to Skill Difficulty:

These charts are included in the sections entitled, "How Skills Are Tested, Grades 1, 2, 3, 6, and 8." Each chart:

-shows the instructional continuum which serves as the basis for testing;

-details the skill difficulty factors that are common to all subskills, as well as particular subskills tested at each grade; and

-references the page numbers for the appropriate Content Supplement.

These charts hopefully will serve as guidance tools for teachers in determining their instructional emphasis in the basic skills.

Sample Test Items:

These samples are included in the grade level sections entitled "How Skills are Tested." The sample test items, with their directions, can serve as a guide in classroom assessment of basic skills instruction. Teachers may wish to write their own test items to assess basic skills through use of the sample formats and the "Summary Chart for Keys to Skill Difficulty."

Ideas for Instructional Activities:

The sections entitled "What Some Instructional Considerations Are" suggests ideas for instructional activities. These activities are divided into early and later grade possibilities and are focused on helping the student learn the basic skills. Many of the early grade activities can be adapted for use with older students and vice versa. Teachers are encouraged to use other resources, as well as their own ideas in coming up with other activities.

Content Supplements:

These supplements are included in the sections entitled "Content Supplement." In these sections, the content (abbreviations, words, symbols, figures, etc.) that is eligible for testing a specific subskill at each grade level is detailed.

USE OF SOUTH CAROLINA READING AND MATHEMATICS WORD LISTS

As part of test development, two separate word lists were developed. These lists include all vocabulary words used in the test items. The Reading Word List is published in a separate publication, the South Carolina Word List, South Carolina Department of Education, September, 1980. The "Mathematics Supplement to the South Carolina Word List" is included at the front of the Mathematics Section of this resource guide (see pages 2-3 of the Mathematics Section). Both word lists should be used along with this guide.

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READING

READING
(GRADES 1, 2, 3, 6, AND 8)

WHAT IS THE READING LEVEL OF THE TESTS?

GRADES 1, 2, 3, 6, and 8

In developing the reading test items, controls were placed on the reading selections at each grade level to insure that the test reading level would be appropriate for South Carolina students. Criteria were set for each of five reading controls defined as follows.

1. Reading Selection Length: The maximum number of sentences and words in the selection.

2. Number of Paragraphs: The total number of paragraphs in the selection.

3. Sentence Length: The maximum number of words in any sentence in the selection.

4. Sentence Structure Complexity: The number of clauses in any sentence in the selection.

5. Vocabulary Difficulty: The difficulty of the vocabulary as defined in the publication the South Carolina Word List.

   Additionally, in the elementary grades, especially Grades 1, 2, and 3, be sure that students understand the meaning of the words used in the directions to the test questions. Pay particular attention to the words "darken" and "bubble."

The criteria for each of these controls are summarized for each grade level in the following chart.

READING
(GRADES 1, 2, 3, 6, AND 8)

SUMMARY CHART FOR READING CONTROLS

The criteria in this chart apply to the test items for all reading objectives in which reading selections are used.

CONTROLS	CRITERIA				
	GRADE 1	GRADE 2	GRADE 3	GRADE 6	GRADE 8
READING SELECTION LENGTH	3 sentences, 24 words maximum	4-5 sentences, 50 words maximum	4-7 sentences, 75 words maximum	125-150 words	150-175 words
NUMBER OF PARAGRAPHS	1	1	1	1-2	1-2
SENTENCE LENGTH	8 words	10 words	12 words	18 words	20 words
SENTENCE STRUCTURE COMPLEXITY	1 clause	2 clauses maximum	2 clauses maximum	2 clauses maximum	3 clauses maximum
VOCABULARY DIFFICULTY*	Grade 1 list	Grade 2 list or below	Grade 3 list or below	Grade 6 list or below	Grade 8 list or below

* Refer to the publication the South Carolina Word List.

READING: DECODING AND WORD MEANING
(GRADES 1, 2, 3, 6, AND 8)

WHAT SKILLS ARE TESTED
AND WHERE

GRADES 1, 2, 3, 6, AND 8

OBJECTIVE

The student can use word recognition skills and can determine the meanings of words.

EXPLANATION

The ability to use all available means in unlocking the meanings of words is one of the most basic skills an independent reader can possess. All of the reading skills tested in the Basic Skills Assessment Program rest on the ability to recognize or determine the meanings of the individual words in a passage.

SUBSKILLS TESTED BY GRADE

The following chart contains the list of subskills tests as part of the Decoding and Word Meaning Objective. These subskills are not intended to limit the curriculum but to provide information on those aspects of the objective tested in BSAP. The X's indicate at what grades each subskill is tested.

SUBSKILLS TESTED	GRADES TESTED				
	1	2	3	6	8
1. Sight Recognition The student can match words either to pictures of familiar objects or to definitions.	X	X	X	X	X
2. Phonetic Decoding The student can recognize words by applying phonetic rules.	X	X	X		
3. Contextual Word Meaning The student can determine the meanings of words used in a selection from the context of the selection.		X	X	X	X
4. Structural Word Meaning The student can determine the meanings of words in a selection by applying structural rules.				X	X

READING: DECODING AND WORD MEANING
(GRADES 1, 2, 3, 6, AND 8)

HOW SKILLS ARE TESTED

GRADES 1, 2, 3, 6, AND 8

TEST ITEM OVERVIEW

The student identifies the meanings of familiar and unfamiliar words by selecting which one of several answer choices represents an appropriate verbal or pictorial definition for a given word. The identification task requires the student to use:

1. sight recognition,
2. phonetic decoding,
3. contextual word meaning, and
4. structural word meaning.

KEYS TO SKILL DIFFICULTY

The difficulty of the test items is varied across grades by changing the key characteristics of the skill.

The following chart summarizes how these variables are tested across grade levels for the skill and its subskills.

READING: DECODING AND WORD MEANING
(GRADES 1, 2, 3, 6, AND 8)

SUMMARY CHART FOR KEYS TO SKILL DIFFICULTY

KEYS TO SKILL DIFFICULTY	TESTING LIMITS				
	GRADE 1	GRADE 2	GRADE 3	GRADE 6	GRADE 8
SIGHT RECOGNITION					
NATURE OF CONTEXT	No context.	Minimal context clues.	Minimal context clues.	Minimal context clues.	Minimal context clues.
SELECTION LENGTH	Single word.	1 sentence.	1 sentence.	1 or 2 sentences.	1 or 2 sentences.
VOCABULARY DIFFICULTY*	Sight word: Grade 1 list.	Sight word: Grade 2 list. Other words in sentence: Grade 1 list.	Sight word: Grade 3 list. Other words in sentence: Grade 2 list or below.	Sight word: Grade 6 list. Other words in sentence: Grade 5 list or below.	Sight word: Grade 8 list. Other words in sentence: Grade 7 list or below.
PHONETIC DECODING					
NATURE OF CONTEXT	Oral stimulus.	Oral stimulus.	Oral stimulus.	Not tested.	Not tested.
COMPLEXITY OF NONSENSE WORDS	1 syllable. Short vowel. See Content Supplement, pages 29-30.	1 syllable. Long or short vowel. See Content Supplement, pages 31-34.	1-2 syllables. Vowel long, short, or followed by "r". See Content Supplement, pages 35-40.	Not tested.	Not tested.
CONTEXTUAL WORD MEANING					
NATURE OF CONTEXT	Not tested.	Maximal context clues: one or more clear context clues.	Maximal context clues: one or more clear context clues.	Maximal context clues: one or more clear context clues.	Maximal context clues: one or more clear context clues.
SELECTION LENGTH	Not tested.	1-2 sentences.	1-2 sentences.	1-2 sentences.	1-2 sentences.
VOCABULARY DIFFICULTY*	Not tested.	Context word: very unfamiliar word. Other words in sentences: Grade 2 list or below.	Context word: very unfamiliar word. Other words in sentences: Grade 2 list or below.	Context word: very unfamiliar word. Other words in sentences: Grade 5 list or below.	Context word: very unfamiliar word. Other words in sentences: Grade 7 list or below.
STRUCTURAL WORD MEANING					
NATURE OF CONTEXT	Not tested.	Not tested.	Not tested.	Minimal context clues.	Minimal context clues.
SELECTION LENGTH	Not tested.	Not tested.	Not tested.	1-2 sentences.	1-2 sentences.
VOCABULARY DIFFICULTY*	Not tested.	Not tested.	Not tested.	Structural word: root word with affix. Other words in sentences: Grade 5 list or below. See Content Supplement, pages 41-43.	Structural word: root word with affix. Other words in sentences: Grade 7 list or below. See Content Supplement, pages 41-43.

* See South Carolina Word List.

READING: DECODING AND WORD MEANING
(GRADE 1)

HOW SKILLS ARE TESTED

GRADE 1

OBJECTIVE

The student can use word recognition skills and can determine the meanings of words.

SUBSKILLS TESTED AT GRADE 1

There is an "X" in the box next to each subskill tested at Grade 1.

☒ 1. Sight Recognition

The student can match words either to pictures of familiar objects or to definitions.

☒ 2. Phonetic Decoding

The student can recognize words by applying phonetic rules.

☐ 3. Contextual Word Meaning

The student can determine the meanings of words used in a selection from the context of the selection.

☐ 4. Structural Word Meaning

The student can determine the meanings of words in a selection by applying structural rules.

READING: DECODING AND WORD MEANING
(GRADE 1)

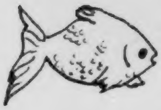
SAMPLE TEST ITEMS AND DIRECTIONS

The following test items are samples of the types administered in BSAP.

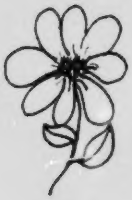
Subskill Tested: Sight Recognition

Teacher says: Read the word in the box. (Pause)
Find the picture that goes with the word. (Pause)
Darken the bubble under your answer.

flower

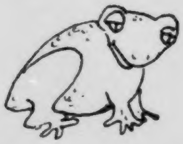


○



●

(correct)



○

Subskill Tested: Phonetic Decoding

Teacher says: Listen to the word I say. It will be a nonsense word.

(Pronunciation guide: păb: a as in pan)
(See page 28.)

The word is PAB. Find the word PAB. (Pause) Darken the bubble next to your answer.

● pab (correct)

○ paz

○ pag

READING: DECODING AND WORD MEANING
(GRADE 2)

HOW SKILLS ARE TESTED

GRADE 2

OBJECTIVE

The student can use word recognition skills and can determine the meanings of words.

SUBSKILLS TESTED AT GRADE 2

There is an "X" in the box next to each subskill tested at Grade 2.

☒ 1. Sight Recognition

The student can match words either to pictures of familiar objects or to definitions.

☒ 2. Phonetic Decoding

The student can recognize words by applying phonetic rules.

☒ 3. Contextual Word Meaning

The student can determine the meanings of words used in a selection from the context of the selection.

☐ 4. Structural Word Meaning

The student can determine the meanings of words in a selection by applying structural rules.

READING: DECODING AND WORD MEANING
(GRADE 2)

SAMPLE TEST ITEMS AND DIRECTIONS

The following test items are samples of the types administered in BSAP.

Subskill Tested: Sight Recognition

Directions: (Student reads)	Read what is in the box. Answer the question after it. Darken the bubble next to your answer.

Jack will bake some cookies.

What does bake mean?

○ bring to school

● cook in the oven (correct)

○ eat for lunch

Subskill Tested: Phonetic Decoding

Teacher says: Listen to the word I say. It will be a nonsense word.

(Pronunciation guide: bēl: e as in peel)
(See page 28.)

The word is BEAL. Find the word BEAL. (Pause) Darken the bubble next to your answer.

○ pel

○ teal

● beal (correct)

READING: DECODING AND WORD MEANING
(GRADE 2)

SAMPLE TEST ITEMS AND DIRECTIONS (continued)

Subskill Tested: Contextual Word Meaning

Directions: (Student reads)	Read what is in the box. Answer the question after it. Darken the bubble next to your answer.

> Pam started to sob because she was so sad.

Which word means the same as sob?

- ○ laugh
- ● cry (correct)
- ○ walk

READING: DECODING AND WORD MEANING
(GRADE 3)

HOW SKILLS ARE TESTED

GRADE 3

OBJECTIVE

The student can use word recognition skills and can determine the meanings of words.

SUBSKILLS TESTED AT GRADE 3

There is an "X" in the box next to each subskill tested at Grade 3.

☒ 1. Sight Recognition

The student can match words either to pictures of familiar objects or to definitions.

☒ 2. Phonetic Decoding

The student can recognize words by applying phonetic rules.

☒ 3. Contextual Word Meaning

The student can determine the meanings of words used in a selection from the context of the selection.

☐ 4. Structural Word Meaning

The student can determine the meanings of words in a selection by applying structural rules.

READING: DECODING AND WORD MEANING
(GRADE 3)

SAMPLE TEST ITEMS AND DIRECTIONS

The following test items are samples of the types administered in BSAP.

Subskill Tested: Sight Recognition

Directions: (Student reads)
Read what is in the box.
Answer the question after it.
Darken the bubble next to your answer.

The flame was bright.

What does flame mean in this sentence?

○ light of the sun

● bit of fire (correct)

○ shiny metal

Subskill Tested: Phonetic Decoding

Teacher says: Listen to the word I say. It will be a nonsense word.

(Pronunciation guide: blĭt′tər: i as in bitter)
(See page 28.)

The word is BLITTER. Find the word BLITTER. (Pause)
Darken the bubble next to your answer.

○ mitter

○ ditter

● blitter (correct)

READING: DECODING AND WORD MEANING
(GRADE 3)

SAMPLE TEST ITEMS AND DIRECTIONS (continued)

Subskill Tested: Contextual Word Meaning

Directions: (Student reads)	Read what is in the box. Answer the question after it. Darken the bubble next to your answer.

Sally had a nightmare and woke up crying.

What does nightmare mean in this sentence?

○ a happy thought

○ a broken toy

● a bad dream (correct)

READING: DECODING AND WORD MEANING
(GRADE 6)

HOW SKILLS ARE TESTED
GRADE 6

OBJECTIVE

The student can use word recognition skills and can determine the meanings of words.

SUBSKILLS TESTED AT GRADE 6

There is an "X" in the box next to each subskill tested at Grade 6.

☒ 1. Sight Recognition

The student can match words either to pictures of familiar objects or to definitions.

☐ 2. Phonetic Decoding

The student can recognize words by applying phonetic rules.

☒ 3. Contextual Word Meaning

The student can determine the meanings of words used in a selection from the context of the selection.

☒ 4. Structural Word Meaning

The student can determine the meanings of words in a selection by applying structural rules.

READING: DECODING AND WORD MEANING
(GRADE 6)

SAMPLE TEST ITEMS AND DIRECTIONS

The following test items are samples of the types administered in BSAP.

Subskill Tested: Sight Recognition

Directions: (Student reads)	Read the selection in the box. Answer the question about the underlined word. Mark the letter of your choice on your answer sheet.

> He was standing by a sapling.

In this sentence, sapling means:

(A) tall building

(B) young tree

(C) wooden fence

(D) two-door car

Subskill Tested: Contextual Word Meaning

Directions: (Student reads)	Read the selection in the box. Answer the question about the underlined word. Mark the letter of your choice on your answer sheet.

> The zoo had tanks of water for seals,
> whales, and other aquatic animals.

In this sentence, aquatic means:

(A) living in the sea (correct)

(B) sick or hurt

(C) very dangerous

(D) born in the desert

READING: DECODING AND WORD MEANING
(GRADE 6)

SAMPLE TEST ITEMS AND DIRECTIONS (continued)

Subskill Tested: Structural Word Meaning

Directions: (Student reads)	Read the selection in the box. Answer the question about the underlined word. Mark the letter of your choice on your answer sheet.

I underrated the movie.

In this sentence, underrated means:

(A) judged too quickly

(B) thought too little of (correct)

(C) gave an opinion about

(D) liked too much

READING: DECODING AND WORD MEANING
(GRADE 8)

HOW SKILLS ARE TESTED

GRADE 8

OBJECTIVE

The student can use word recognition skills and can determine the meanings of words.

SUBSKILLS TESTED AT GRADE 8

There is an "X" in the box next to each subskill tested at Grade 8.

☒ 1. Sight Recognition

The student can match words either to pictures of familiar objects or to definitions.

☐ 2. Phonetic Decoding

The student can recognize words by applying phonetic rules.

☒ 3. Contextual Word Meaning

The student can determine the meanings of words used in a selection from the context of the selection.

☒ 4. Structural Word Meaning

The student can determine the meanings of words in a selection by applying structural rules.

READING: DECODING AND WORD MEANING
(GRADE 8)

SAMPLE TEST ITEMS AND DIRECTIONS

The following test items are samples of the types administered in BSAP.

Subskill Tested: Sight Recognition

Directions: (Student reads)	Read the selection in the box. Answer the question about the underlined word. Mark the letter of your choice on your answer sheet.

> The class was jubilant.

In this sentence, jubilant means:

(A) joyful (correct)

(B) angry

(C) unhappy

(D) relaxed

Subskill Tested: Contextual Word Meaning

Directions: (Student reads)	Read the selection in the box. Answer the question about the underlined word. Mark the letter of your choice on your answer sheet.

> After our team won the state championship, Mary ran out of the stadium shouting school cheers. Her more sedate friends walked out smiling happily.

In these sentences, sedate means:

(A) wild

(B) unkind

(C) calm (correct)

(D) rich

READING: DECODING AND WORD MEANING
(GRADE 8)

SAMPLE TEST ITEMS AND DIRECTIONS (continued)

Subskill Tested: Structural Word Meaning

Directions: (Student reads)	Read the selection in the box. Answer the question about the underlined word. Mark the letter of your choice on your answer sheet.

The decision was unjust.

In this sentence, unjust means:

(A) too generous

(B) not popular

(C) perfectly correct

(D) not fair (correct)

READING: DECODING AND WORD MEANING
(GRADES 1, 2, 3, 6, AND 8)

WHAT SOME INSTRUCTIONAL
CONSIDERATIONS ARE

GRADES 1, 2, 3, 6, AND 8

Instructionally, there are some other skills that ought to be considered. Although not directly tested in BSAP, these skills are related to the overall decoding and word meaning skill and its related subskills.

1. Visual discrimination (Grades 1, 2, 3, 6, and 8).

   The student can discriminate among various letters, letter groups, and/or words. This skill underlies all aspects of decoding and word meaning. It is particularly crucial when applying the skill of sight recognition.

2. Auditory discrimination (Grades 1, 2, and 3).

   The student can discriminate among common sounds and sound clusters heard in American speech. (See the Content Supplement, pages 29-40. for a listing of sounds and sound clusters eligible for testing.)

3. Knowledge of phonetic rules (Grades 1, 2, and 3).

   The student can match letters and letter groups with their most common sounds. This may require being able to apply phonetic rules in order to select between alternative sounds for a given letter or letter group.

4. Comprehension of syntactic indicators (Grades 2, 3, 6, and 8).

   The student can use the syntax of a sentence as an aid in determining relationships between ideas. For example, a sentence that contains the word "but" establishes a relationship of difference, while a sentence that contains the word "or" establishes a relationship of similarity. Such relationships can be used as contextual clues to the meanings of unfamiliar words.

READING: DECODING AND WORD MEANING
(GRADES 1, 2, 3, 6, AND 8)

5. Utilization of descriptive materials (Grades 2, 3, 6, and 8).

   The student can use any descriptive material that may be contained in a sentence as an aid to inferring the meaning of an unfamiliar word. This material may be in the form of a situation that exemlifies the unfamiliar word, a descriptive phrase that refers to the word, or a synonym or antonym for the unfamiliar word.

6. Judgment of definition's plausibility (Grades 2, 3, 6, and 8).

   The student can determine whether a proposed definition for an unfamiliar word reasonably fits the context of the sentence in which the word occurs.

7. Knowledge of prefixes and suffixes (Grades 6 and 8).

   The student can define common prefixes and suffixes. (See the Content Supplement, pages 41-43, for a listing of the prefixes and suffixes eligible for testing.)

READING: DECODING AND WORD MEANING
(GRADES 1, 2, 3, 6, AND 8)

WHAT KINDS OF ACTIVITIES MIGHT BE DEVELOPED

GRADES 1, 2, 3, 6, AND 8

Although there are clearly some instances in which a particular teaching activity would be appropriate for one grade range yet inappropriate for another, most teachers report that they can often successfully adapt an instructional activity designed for younger or older students.

The activities presented below can, with minor modifications, serve as practice for the overall decoding and word meaning skill, the subskills tested, and the other related skills offered for instructional consideration.

These activities are intended only as examples to stimulate the teacher's thinking. The activities offer merely possibilities, not prescriptions.

EARLY GRADE POSSIBILITIES

Vocabucards

This activity provides a means of promoting sight vocabulary, especially at the first grade level.

1. Make pairs of vocabulary cards. One member of a pair should contain a word selected from the *South Carolina Word List*. The other card should have a picture illustrating that word. When the deck of cards is completed, it should be shuffled well. Several games can now be played with the cards.

2. Individual students can take turns sorting the cards back into pairs, timing themselves to see who completes the matching in the least amount of time.

3. Small groups of students can play a version of Old Maid. One card is removed from the deck, then the rest of the cards are dealt out as far as they will go. Players put on the table any pairs of matching words and pictures that they have received. Then each player draws one card from the hand of the player on the right. If this card makes a match with a card in the player's hand, the new pair is put on the table. The drawing continues until all possible pairs are made. The player with the most matched pairs is the winner.

4. Groups of students can play Go Fish with the deck of cards.

READING: DECODING AND WORD MEANING
(GRADES 1, 2, 3, 6, AND 8)

EARLY GRADE POSSIBILITIES (continued)

5. After they have played with the original deck of cards, students may enjoy helping to create new decks of cards, using other words from the word list and cutting out illustrations from old magazines, used greeting cards, etc.

Stuff and Nonsense

This activity provides practice in the skill of phonetic decoding, both as it is tested and also in the real-life application of pronouncing written words.

1. Using the phonetic rules being studied, create a list of nonsense words. Duplicate the list so that each student has a copy. Also print each word on the list on a separate slip of paper, so that there are as many slips of paper as there are words.

2. Students take turns coming to the front of the room and drawing a slip of paper. Each student must pronounce aloud the word drawn.

3. The other students find the word they have heard on their lists. If there are any disagreements as to the word that was read aloud or its match on the list, the teacher intervenes, either to help the student who pronounced the word to correct that pronunciation or to help other students apply the appropriate phonetic rules.

What Does It Mean?

This activity provides practice in arriving at the meanings of unfamiliar words by using context clues. By providing this practice in the context of actual reading, the activity demonstrates the usefulness of contextual analysis while also formalizing and refining techniques that many readers often apply almost automatically.

1. During the course of a class reading session, ask individual students to define unfamiliar words they encounter in their reading. If regular reading materials do not contain words that are unfamiliar to most students, locate or prepare materials containing a few particularly advanced words.

2. The class as a whole can then discuss each definition, refining it or suggesting alternate definitions that fit the context. Ask the students to explain how they arrived at their definitions. If students find it difficult to formulate definitions, provide whatever prompting is necessary, including suggesting various definitions that may or may not be supported by the context.

3. When the class has agreed on the various definitions, have students consult a dictionary to check those definitions.

READING: DECODING AND WORD MEANING
(GRADES 1, 2, 3, 6, AND 8)

EARLY GRADE POSSIBILITIES (continued)

Word Hunt

This activity offers another means for increasing students' sight vocabulary.

1. Print a word from the appropriate level of the South Carolina Word List on the chalkboard.
2. Select a student to respond to the word. The student is to find either an object or a picture in the room that illustrates the word (if it is a noun or an adjective) or act out the word (if it is a verb, an adverb, or a preposition).
3. Other students judge the correctness of the response.

Sound Bingo

This activity uses a familiar game to promote the skill of phonetic decoding.

1. Make a set of Bingo cards using as entries letters, letter combinations, or words based on the phonetic rules that are being studied.
2. Choose entries from the list of possible Bingo card entries at random. Pronounce a word that contains the sound of interest as the oral clue.
3. Students mark the entries that appear on their cards. The first student to correctly complete a horizontal, vertical, or diagonal row on a Bingo card wins the game.

LATER GRADE POSSIBILITIES

Teacher, Teacher

Students are provided with an opportunity to help each other learn basic sight vocabulary words.

1. Select two lists of new words from the appropriate grade level of the South Carolina Word List.
2. Students are to work in pairs. One member of each pair receives one list of words and the other member receives the second list. Both students are to find out the meanings of the words on their lists. This can be done in class or assigned as homework.

LATER GRADE POSSIBILITIES (continued)

3. Students then teach the words on their list to their partners. This should be done in class with all students allowed an equal amount of time.

4. All students then take a quiz on both lists of words. Students receive the combined score earned by the two individuals in their pair, thus taking into account both the learning and the teaching tasks.

Crossword Puzzles

Sight vocabulary words and their definitions are stressed through this activity.

1. Give students the framework for a crossword puzzle.

2. Students create puzzles by filling in the framework with sight vocabulary words from the appropriate levels of the South Carolina Word List. Each word should be accompanied by its definition as a clue.

3. Students can exchange their papers and solve each other's puzzles. The best puzzles might be shared with another class or saved for future use.

Turkey

This activity provides practice in using context clues to determine the meanings of words. It is a game that can be played by the class as a whole or by individual groups of students. The teacher or students can make up the clues needed for playing the game.

1. Begin by selecting a key word for each round of play. This word should be one that most of the students will know.

2. Prepare a series of sentences based on the key word. Sequence these sentences so that each one provides increasingly more context for the key word. For instance, the first sentence might provide a neutral context for the key word, while the last sentence might actually define the key word. The length and subtlety of these sentences can be varied to suit the abilities of the students.

READING: DECODING AND WORD MEANING
(GRADES 1, 2, 3, 6, AND 8)

LATER GRADE POSSIBILITIES (continued)

3. Substitute the word turkey for the key word in each sentence. A sample sequence of Turkey sentences, for the key word eat, appears below:

   a. I turkey every day.
   b. Everyone has to turkey.
   c. Most people turkey at a table.
   d. Many people turkey three times a day.
   e. To turkey is to take food into your body.

4. Have the sentences read aloud. After each sentence, students have a chance to guess the meaning of turkey. Students compete to see who can make the fewest wrong guesses and determine the key word first.

Where's the Clue?

This approach to using context clues involves a relatively formal analysis of the types of context clues which may appear in test items.

1. Prepare a group of sentences containing the three types of context clues that are used in testing this skill: synonyms, antonyms, and situation descriptions. The words defined by these context clues may be either familiar or unfamiliar words.

2. Students are to locate the context clues present in each sentence and then categorize those clues using the three categories listed above.

3. A class discussion on how to find context clues can follow the analysis of individual sentences.

Really in Affix

This activity is intended to help students learn the meanings of the affixes that are eligible for testing.

1. Each week students are to learn the meanings of a group of prefixes and suffixes selected from the Content Supplement. These "Affixes of the Week" can be posted in a prominent location in the room.

2. During the week students can practice creating and defining words that use the week's affixes.

3. At the end of the week students can be tested on their familiarity with that week's group of affixes.

READING: DECODING AND WORD MEANING
(GRADES 1, 2, 3, 6, AND 8)

LATER GRADE POSSIBILITIES (continued)

Affix Practice

This series of activities allows students multiple opportunities to master the skill of structural word analysis.

1. Provide a list of words. Each word should contain one prefix or suffix selected from the Content Supplement. Provide a separate list of definitions. Students are to match each word with its appropriate definition. This activity can be made more difficult by including more definitions than words.

2. Give students a list of definitions for words that consist of a root plus a single prefix or suffix. Students are to supply the word that they think matches each definition.

3. Give students a list of words that each contain a single affix. Students are to supply the definitions for those words.

DECODING AND WORD MEANING

CONTENT SUPPLEMENT
(GRADES 1, 2, 3)

PRONUNCIATION GUIDE

SYMBOL	KEY WORDS
ă	ask, fat
ā	ape, date
ä	lot, father
ĕ	elf, net
er	berry, care
ē	even, meet
ĭ	is, hit
ir	mirror, year
ī	ice, fire
ō	open, go
ô	law, ball
oi	oil, destroy
o͝o	look, pull
o͞o	ooze, tool
yoo	unite, fury
yo͞o	cute, few
ou	out, crowd
ŭ	up, cut
ʉr	fur, fern
ə	a in ago
	e in agent
	i in unity
	o in collect
	u in focus

SYMBOL	KEY WORDS
b	bed, dub
d	did, had
f	fall, off
g	get, dog
h	he, ahead
j	joy, jump
k	kill, bake
l	let, ball
m	met, trim
n	not, ton
p	put, tap
r	red, dear
s	sell, pass
t	top, hat
v	vat, have
w	will, always
y	yet, yard
z	zebra, haze
ch	chin, arch
ŋ	ring, singer
sh	she, dash
th	thin, truth
ŧh	then, father
zh	s in pleasure
ʼ	as in (ā′bʼl)

A heavy stress mark ′ is placed after a syllable that gets a strong accent, as in con-sid-er (kənsid′ər).

A light stress mark ′ is placed after a syllable that also gets an accent, but of a weaker kind, as in dic-tion-ar-y (dik′shəner′ē)

DECODING AND WORD MEANING

CONTENT SUPPLEMENT
(GRADE 1)

ELIGIBLE LETTERS AND LETTER COMBINATIONS FOR NONSENSE WORDS

The letters and combinations eligible for use at the different locations in the nonsense word patterns to be tested are listed below. Following each eligible letter or combination listed is one or more pronunciation symbols and example words. The pronunciation symbols are based on the pronunciation key in *Webster's New World Dictionary for Young Readers*. In nonsense words, the eligible letters and groups of letters will represent only the sounds indicated in this list.

I. Letters and combinations eligible for use at *beginning* of all words:

Single Consonants

b (/b/, bed)
d (/d/, did)
f (/f/, fall)
g (/g/, go)-to be used before a, o, or u only
h (/h/, he)
j (/j/, joy)
k (/k/, kill)
l (/l/, let)
m (/m/, met)
n (/n/, not)
p (/p/, put)
r (/r/, red)
s (/s/, sell)
t (/t/, top)
v (/v/, vat)
w (/w/, will)
y (/y/, yet)
z (/z/, zebra)

Consonant Blends

bl (/bl/, blue)
br (/br/, bread)
cl (/kl/, clown)
cr (/kr/, crowd)
dr (/dr/, drink)
fl (/fl/, flag)
fr (/fr/, frog
gl (/gl/, glass)
gr (/gr/, grow)
pl (/pl/, play)
pr (/pr/, prince)
sk (/sk/, skate)
sl (/sl/, slip)
sm (/sm/, small)
sn (/sn/, snap)
sp (/sp/, spill)
st (/st/, stay)
sw (/sw/, sweet)
tr (/tr/, try)
tw (/tw/, twig)

DECODING AND WORD MEANING

CONTENT SUPPLEMENT
(GRADE 1)

ELIGIBLE LETTERS AND LETTER COMBINATIONS FOR NONSENSE WORDS

Consonant Digraphs (continued)

ch (/*ch*/, chin)

sh (/*sh*/, she)

th (/*th*/, thin)

th (/*th*/, then)

II. Letters eligible for use in the middle of cvc words:

Vowels

a (/ă/, fat)

e (/ĕ/, net)

i (/ĭ/, hit)

o (/ä/, lot)

u (/ŭ/, cut)

III. Letters and combinations eligible for use at the end of cvc words:

Single Consonants

b (/b/, dub)

d (/d/, had)

g (/g/, dog)

m (/m/, trim)

n (/n/, ton)

p (/p/, tap)

t (/t/, hat)

Consonant Blends

ft (/ft/, gift)

mp (/mp/, lamp)

nd (/nd/, hand)

nt (/nt/, lint)

sk (/sk/, mask)

sp (/sp/, gasp)

st (/st/, list)

Consonant Digraphs

sh (/*sh*/, cash)

th (/*th*/, moth)

IV. Common Word Endings:

-ack (/ăk/, back)

-alk (/ôk/, walk)

-all (/ôl/, wall)

-ess (/ĕs/, dress)

-ight (/īt/, light)

-ill (/ĭl/, hill)

-ing (/ĭng/, sing)

-old (/ōld/, cold)

-ould (/o͝od/, would)

-uck (/ŭk/, duck)

DECODING AND WORD MEANING

CONTENT SUPPLEMENT
(GRADE 2)

ELIGIBLE LETTERS AND LETTER COMBINATIONS FOR NONSENSE WORDS

The letters and combinations eligible for use at the different positions in the nonsense word patterns to be tested are listed below. Following each letter or combination is a pronunciation symbol and example word. The pronunciation symbols are based on the pronunciation key in *Webster's New World Dictionary for Young Readers*. In nonsense words, the eligible letters and groups of letters will represent only the sounds indicated in this list.

The following table assigns Roman numerals to the various letter positions in the eligible word patterns. The word patterns are given in abbreviated form, where *C* indicates a consonant and *V* indicates a vowel. For example, the word pattern *consonant-vowel-consonant* would be indicated as *CVC*.

POSITION	PATTERNS WITH POSITION UNDERLINED
I	($\underline{C}$)VC, ($\underline{C}$)VCe, ($\underline{C}$)VVC, $\underline{C}$+common word ending
II	(C)$\underline{V}$C
III	(C)$\underline{V}$Ce
IV	(C)$\underline{VV}$C
V	(C)V$\underline{C}$
VI	(C)V$\underline{C}$e
VII	(C)VV$\underline{C}$
VIII	C+$\underline{\text{common}}$ $\underline{\text{word}}$ $\underline{\text{ending}}$

I. Letters and combinations eligible for Position I.

A. Single Consonants

b (/b/, bed)

c (/k/, call)-to be used before a, o, u only

c (/s/, city)-to be used before e, i only

d (/d/, did)

f (/f/, fall)

g (/g/, go)-to be used before a, o, u only

g (/j/, gem)-to be used before e, i only

h (/h/, he)

j (/j/, joy)

k (/k/, kill)

l (/l/, let)

m (/m/, met)

n (/n/, not)

p (/p/, put)

r (/r/, red)

s (/s/, sell)

t (/t/, top)

v (/v/, vat)

w (/w/, will)

y (/y/, yet)

z (/z/, zebra)

DECODING AND WORD MEANING

CONTENT SUPPLEMENT
(GRADE 2)

ELIGIBLE LETTERS AND LETTER COMBINATIONS FOR NONSENSE WORDS
(continued)

B. Consonant Blends

bl (/bl/, blue)
br (/br/, bread)
cl (/kl/, clown)
cr (/kr/, crowd)
dr (/dr/, drink)
fl (/fl/, flag)
fr (/fr/, frog)
gl (/gl/, glass
gr (/gr/, grow)
pl (/pl/, play)
pr (/pr/, prince)
sk (/sk/, skate)
sl (/sl/, slip)
sm (/sm/, small)
sn (/sn/, snap)
sp (/sp/, spill
st (/st/, stay)
sw (/sw/, sweet)
tr (/tr/, try)
tw (/tw/, twig)
scr(/skr/, scream)
spl(/spl/, split)
spr(/spr/, spring)
str(str/, street)

C. Consonant Digraphs

ch (/*ch*/, chin)
qu (/kw/, quick)
sh (/*sh*/, she)
th (/*th*/, thin)
th (/*th*/, then)
wh (/hw/, when)

D. Consonant Digraph-Blends

shr (/*sh*r/, shrimp)   squ (/skw/, square)   thr (/*th*r/, throw)

II. Letters eligible for Position II

A. Vowels

a (/ă/, fat)
e (/ĕ/, ten)
i (/ĭ/, hit)
o (/ä/, lot)
u (/ŭ/, cut)

III. Letters eligible for Position III

A. Vowels

a (/ā/, date)
i (/ī/, side)
o (/ō/, hole)
u (/yo͞o/, cute)

IV. Letter combinations eligible for Position IV

A. Vowel Combinations

ai (/ā/, rail
ea (/ē/, meat)
ee (/ē/, beet)
oa (/ō/), boat)

DECODING AND WORD MEANING

CONTENT SUPPLEMENT
(GRADE 2)

ELIGIBLE LETTERS AND LETTER COMBINATIONS FOR NONSENSE WORDS (continued)

V. Letters and combinations eligible for Position V

A. Single Consonants

b (/b/, dub)
d (/d/, had)
g (/g/, dog)
m (/m/, trim)
n (/n/, tan)
p (/p/, tap)
t (/t/, hat)
x (/ks/, fox)

B. Consonant Blends

ft (/ft/, gift)

mp (/mp/, lamp)

nd (/nd/, land)

nt (/nt/, hunt)

st (/st/, post)

C. Consonant Digraphs

sh (/sh/, cash) th (/*th*/, moth)

D. Consonant Digraph-Blends

nch (/*nch*/, ranch) ths (/*th*z/ or /*th*s/, moths)

VI. Letters and combinations eligible for Position VI

A. Single Consonants

b (/b/, robe)
c (/s/, rice)
d (/d/, side)
f (/f/, wife)
g (/j/, rage)
k (/k/, make)
l (/l/, file)
m (/m/, fame)
n (/n/, cone)
p (/p/, wipe)
s (/z/, rise)
t (/t/, rate)
v (/v/, dive)-to be used after a, i only
z (/z/, maze)

B. Consonant Digraphs

th (/*th*/, bathe)

DECODING AND WORD MEANING

CONTENT SUPPLEMENT
(GRADE 2)

ELIGIBLE LETTERS AND LETTER COMBINATIONS FOR NONSENSE WORDS (continued)

VII. Letters and Combinations eligible for Position VII

A. Single Consonants

- d (/d/, read)
- f (/f/, loaf)
- k (/k/, seek)
- l (/l/, deal)
- m (/m/, roam)
- n (/n/, seen)
- p (/p/, reap)
- t (/t/, boat)

B. Consonant Blends

- st (/st/, roast)

C. Consonant Digraphs

- ch (/ch/, reach)

VIII. Word endings eligible for Position VIII

- -ang (/ăng/, bang)
- -ank (/ăngk/, bank)
- -ass (/ăs/, grass)
- -ell (/ĕl/, tell)
- -ick (/ĭk/, trick)
- -ind (/īnd/, find)
- -ink (/ĭngk), think)
- -ock (/äk/, block)
- -ong (/ông/, long)
- -unk (/ŭngk/, trunk)

DECODING AND WORD MEANING

CONTENT SUPPLEMENT
(GRADE 3)

ELIGIBLE LETTERS AND LETTER COMBINATIONS FOR NONSENSE WORDS

The letters and combinations eligible for use at the different positions in the nonsense word patterns to be tested are listed below. Following each letter or combination is a pronunciation symbol and example word. The pronunciation symbols are based on the pronunciation key in Webster's New World Dictionary for Young Readers. In nonsense words, the eligible letters and groups of letters will represent only the sounds indicated in this list.

The following table assigns Roman numerals to the various letter positions in the eligible word patterns. The word patterns are given in abbreviated form, where C indicates a consonant and V indicates a vowel. For example, the word pattern consonant-vowel-consonant would be indicated as CVC.

POSITION	PATTERNS WITH POSITIONS UNDERLINED
I	CVr(C), CVre, CVVr, (c)-diphthong-C, (c)-vowel digraph-C, C-common word ending, (C)VC/CVC, CV/CVC, (C)VC/CVC, (C)VC/Cy, (C)VC/common syllable, CV/common syllable
II	CVr(C)
III	CVrc
IV	CVVr
V	CVr(C)
VI	(C)-diphthong-C
VII	(C)-vowel digraph-C
VIII	(C)-diphthong-C, (C)-vowel digraph-C
IX	C-common word ending
X	(C)VC/CVC, (C)VC/Cy, (C)VC/common syllable
XI	CV/CVC, CV/common syllable
XII	(C)VC/CVC, (C)VC/Cy, (C)VC/common syllable
XIII	(C)VC/CVC, CV/CVC, CVC/Cy
XIV	(C)VC/CVC, CV/CVC
XV	(C)VC/CVC, CV/CVC
XVI	(C)VC common syllable, CV/common syllable

DECODING AND WORD MEANING

CONTENT SUPPLEMENT
(GRADE 3)

ELIGIBLE LETTERS AND LETTER COMBINATIONS FOR NONSENSE WORDS
(continued)

I. Letters and combinations eligible for Position I

A. Single Consonants

- b (/b/, bed)
- c (/k/, call), to be used before a, o, u only
- c (/s/, city), to be used before e, i only
- d (/d/, did)
- f (/f/, fall)
- g (/g/, go), to be used before a, o, u only
- g (/j/, gem), to be used before e, i only
- h (/h/, he)
- j (/j/, joy)
- k (/k/, kill)
- l /l/, let)
- m (/m/, met)
- n (/n/, not)
- p (/p/, put)
- r (/r/, red)
- s (/s/, sell)
- t (/t/, top)
- v (/v/, vat)
- w (/w/, will)
- y (/y/, yet)
- z (/z/, zebra)

B. Consonant Blends

- bl (/bl/.blue)
- br (/br/,bread)
- cl (/kl/,clown)
- cr (/kr/,crowd)
- dr (/dr/,drink)
- fl (/fl/,flag)
- fr (/fr/,frog)
- gl (/gl/,glass)
- gr (/gr/,grow)
- pl (/pl/,play)
- pr (/pr/,prince)
- sk (/sk/,skate)
- sl (sl/, slip)
- sm (sm/, small)
- sn (/sn/,snap)
- sp (/sp/,spill)
- st (/st/,stay)
- sw(/sw/, sweet)
- tr (/tr/,try)
- tw (/tw/,twig)
- scr(skr/, scream)
- spl(spl/, split)
- spr(/spr/,spring)
- str(/str/,street)

C. Consonant Digraphs

- ch (/ch/,chin)
- qu (/kw/,quick)
- sh (/sh/,she)
- th (/th/,thin)
- th (/th/,then)
- wh (/hw/,when)

D. Consonant Digraph Blends

- shr(/shr/,shrimp)
- squ(/skw/,square)
- thr (/thr/, throw)

II. Letters eligible for Position II

A. Vowels

- a (/ä/, car)
- e (/û/, her)
- i (/û/, fir)
- u (/û/, fur)

DECODING AND WORD MEANING

CONTENT SUPPLEMENT
(GRADE 3)

ELIGIBLE LETTERS AND LETTER COMBINATIONS FOR NONSENSE WORDS (continued)

III. Letters eligible for Position III

A. Vowels

- a (/e/, care)
- e (/ĭ/, here)
- i (/ī/, fire)
- o (/ô/, more)
- u (/yo͞o/, pure)

IV. Combinations eligible for Position IV

A. Vowel Combinations

- ai (/e/, hair)
- ea (/ĭ/, hear)
- ee (/ĭ/, deer)

V. Letters and combinations eligible for Position V.

A. Single Consonants

- d (/d/, hard)
- f (/f/, surf)
- k (/k/, dark)
- l (/i/, curl)
- m (/m/, term)
- n (/n/, barn)
- p (/p/, harp)
- t (/t/, cart)

B. Consonant Digraphs

- ch (/ch/, march)
- sh (/sh/, harsh)
- th (/th/, birth)

VI. Combinations eligible for Position VI

A. Diphthongs

- oi (/oi/, oil)
- ou (/ou/, loud)
- ow (/ou/, crowd)

VII. Combinations eligible for Position VII

A. Vowel Digraphs

- oo (/o͝o/, look)
- oo (/o͞o/, tool)

VIII. Letters and combinations eligible for Position VIII

A. Single Consonants

- d (/d/, loud)
- k (/k/, book), to be used after oo only
- l (/l/, oil)
- m (/m/, loom), to be used after oo only
- n (/n/, coin), to be used after oo, oi, ow only
- p (/p/, loop), to be used after oo only
- t (/t/, out), to be used after oo, ou only

DECODING AND WORD MEANING

CONTENT SUPPLEMENT
(GRADE 3)

ELIGIBLE LETTERS AND LETTER COMBINATIONS FOR NONSENSE WORDS
(continued)

B. Consonant Blends

nd (/nd/, round),
to be used
after ou only

nt (/nt/, point),
to be used
after oi, ou
only

st (/st/, roost),
to be used
after oo, oi,
ou only

C. Consonant Digraphs

ch (/ch/, couch),
to be used
after ou only

th (/th/, tooth),
to be used
after oo, ou
only

IX. Word Endings eligible for Position IX

-ance (/ăns/, dance)
-atch (/ăch/, catch)
-earn (/ûrn/, learn)
-eck (/ĕk/, neck)
-iff (/ĭf/, cliff)
-igh (/ī/, high)
-ild (/īld/, wild)
-itch (/ĭch/, pitch)
-orn (/ôrn/, corn)
-ort (/ôrt/, short)
-orth (/orth/, forth)
-oss (/ôs/, toss)
-uff (/ŭf/, cuff)
-ung (/ŭng/, hung)

X. Letters eligible for Position X

A. Vowels

a (/ă/, banner)
e (/ĕ/, center)
i (/ĭ/, ticket)
o (/ä/, concert)
u (/ŭ/, bubble)

DECODING AND WORD MEANING

CONTENT SUPPLEMENT
(GRADE 3)

ELIGIBLE LETTERS AND LETTER COMBINATIONS FOR NONSENSE WORDS (continued)

XI. Letters eligible for Position XI

A. Vowels

- a (/ā/, table)
- e (/ē/, recent)
- i (/ī/, diner)
- o (/ō/, local)
- u (/yo͞o/, cuter)

XII. Letters eligible for Position XII

A. Single Consonants

- b (/b/, bubble)
- c (/k/, buckle)
- d (/d/, saddle)
- f (/f/, suffer)
- g (/g/, piglet)
- l (/l/, miller)
- m (/m/, simple)
- n (/n/, candy)
- p (/p/, caption)
- s (/s/, lesson)
- t (/t/, cattle)

XIII. Letters eligible for Position XIII

A. Single Consonants

- b (/b/, bubble), to be used after b, l, m, only
- c (/c/, cancel), to be used after l, n only; before e, i only
- d (/d/, saddle), to be used after d, l, n only
- f (/f/, suffer), to be used after f, n only
- g (/g/, dagger), to be used after g only; may be used before e
- l (/l/, piglet) to be used after g, l, only
- m (/m/, summer). to be used after m only
- n (/n/, banner), to be used after n only
- p (/p/, whimper), to be used after m, p, r, s only
- s (/s/, absent) to be used after b, p, s only
- t (/t/, captor) to be used after f, l, m, n, p, s, t only

XIV. Letters eligible for Position XIV

A. Vowels

- a (/ə/, collar)
- e (/ə/, bullet)
- i (/ə/, basin)
- o (/ə/, carton)
- u (/ə/, focus)

DECODING AND WORD MEANING

CONTENT SUPPLEMENT
(GRADE 3)

ELIGIBLE LETTERS AND LETTER COMBINATIONS FOR NONSENSE WORDS
(continued)

XV. Letters and combinations eligible for Position XV

A. Single Consonants

d (/d/, ended)
n (/n/, cannon)
r (/r/, collar)
l (/l/, cancel)
p (/p/, tulip)
t (/t/, ballot)

B. Consonant Blends

nt (/nt/, gallant)
st (/st/, hardest)

XVI. Syllables eligible for Position XVI

-ble (/b'l/, table), to be used after vowels, b, l, m only

-cle (/k'l/, circle), to be used after r only

-dle (/d'l/, cradle), to be used after vowel, d, l, n, only

-kle (/k'l/, sparkle), to be used after c, l, n, r only

-ple (/p'l/, purple), to be used after vowels, m, p, r, s only

-tion (/shən/, station), to be used after vowels, c, p, r, only

-tle (/t'l/, turtle) to be used after vowel, f, l, m, n, p, s, t only

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DECODING AND WORD MEANING

CONTENT SUPPLEMENT
(GRADES 6, 8)

COMMONLY USED PREFIXES AND SUFFIXES

PREFIXES

I NEGATIVE PREFIXES

6,8	*de-*	1. do the reverse; undo. 2. take away.
6,8	*dis-*	1. reversal or undoing of an act. 2. stop, refuse to.
8	*in-,il-, im-,ir-*	1. not; without.
8	*mis-*	1. wrongly, poorly; bad.
6,8	*non-*	1. not.
6,8	*un-*	1. not; opposite of. 2. change the action to the opposite of.

II TIME OR ORDER PREFIXES

6,8	*ex-*	1. earlier; former.
8	*post-*	1. after; following.
8	*pre-*	1. before in time, rank position, etc. 2. ahead of when necessary.

III DEGREE, SIZE AND NUMBER PREFIXES

6,8	*out-*	1. greater or better than in quality or action.
6,8	*over-*	1. too much; to a great degree.
8	*sub-*	1. almost; nearly; less than. 2. below or lower in position, rank, etc. 3. further divided into smaller parts.
8	*super-*	1. greater in quantity, size, strength, etc. 2. specially, unusually.
8	*tri-*	1. having three. 2. happening every third time.
6,8	*under-*	1. below in rank. 2. less in quality; not enough.

IV LOCATION PREFIXES

8	*fore-*	1. before; in advance; front.
6,8	*in-*	1. in; into; within; toward.
6,8	*mid-*	1. middle of; halfway through.
6,8	*out-*	1. away from the center; outward in direction. 2. located or set near or beyond.
6,8	*over-*	1. above in place, quality, position, etc. 2. across or beyond.
8	*sub-*	1. below or lower in position, rank, etc.
8	*trans-*	1. over; across; through.
6,8	*under-*	1. below in position; inside.

V OTHER PREFIXES

8	*co-*	1. together with; at the same time. 2. equal.
8	*en-*	1. put on or into, surround; close in. 2. make. 3. add strength to a meaning.
6,8	*over-*	1. become upside down; cause to fall.
8	*pro-*	1. for, in favor of; in place of.
6,8	*re-*	1. again. 2. back.
6,8	*self-*	used with nouns and adjectives to show that: 1. the one performing the act is the one affected by it, or 2. the action is done only through its own effort of power.

DECODING AND WORD MEANING

CONTENT SUPPLEMENT
(GRADES 6, 8)

COMMONLY USED PREFIXES AND SUFFIXES
(Continued)

SUFFIXES

I NOUN SUFFIXES

8	*-age*	1. act of; state of. 2. cost of; amount of. 3. place of.
8	*-ance,* *-ence*	1. act of, condition of, state of, or quality of.
6,8	*-ant,* *-ent*	1. a person or thing that does something, acts in a particular way, is acted upon, or is used for.
6,8	*-ar,* *-er* *-or*	1. a person or thing that does something. 2. a person concerned with. 3. a person who resides in or on.
6,8	*-ess*	1. female.
6,8	*-ful*	1. a quantity sufficient to fill.
6,8	*-ing*	1. product or result of an action. 2. material for. 3. the act of one who does what a given verb describes.
6,8	*-ion,* *-tion*	1. act, condition, or result of.
8	*-ism*	1. the act or result of. 2. the state, condition or quality of. 3. theory; belief.
8	*-ist*	1. one who practices; one whose profession is. 2. one who believes in; one who is a student of.
8	*-ity*	1. state; quality.
6,8	*-ling*	1. small or lesser. 2. of.
8	*-ment*	1. result of; act of. 2. means of; thing used for. 3. condition; state of being.
8	*-ness*	1. quality or state of being.
6,8	*-ship*	1. state or quality of. 2. rank. 3. art or skill.
6,8	*-teen*	1. added to ten.
6,8	*-ty*	1. quality or condition of. 2. tens; ten times.
8	*-ware*	1. manufactured products made of or from.
6,8	*-y*	1. the act or action of. 2. the state or quality of being.

II VERB SUFFIXES

6,8	*-ate*	1. become or cause to become.
8	*-en*	1. make or become. 2. gain; cause to have.
8	*-fy,* *-ify*	1. make; become. 2. cause to feel or have.
6,8	*-ize*	1. make into or like; become. 2. act in a certain way; treat; engage in. 3. treat; combine with; subject to the action of.

DECODING AND WORD MEANING

CONTENT SUPPLEMENT
(GRADES 6, 8)

COMMONLY USED PREFIXES AND SUFFIXES
(Continued)

III ADJECTIVE SUFFIXES

6,8	*-able,* *-ible*	1. that can or may be done. 2. that exists as a condiiton.
8	*-ant,* *-ent*	1. doing; showing; having. 2. being or acting in a particular way.
6,8	*-ed*	1. characterized by.
6,8	*-en*	1. make of; like.
6,8	*-ful*	1. full of. 2. tending or like to.
8	*-ic*	1. of the nature of; like. 2. in the manner of. 3. consisting of; containing.
8	*-ious,* *-ous*	1. having or characterized by; full of.
6,8	*-ish*	1. like. 2. somewhat; rather. 3. of; belonging to.
6,8	*-less*	1. free from; without. 2. unable to do or to be.
6,8	*-like*	1. similar to.
6,8	*-ly*	1. each; every. 2. like; similar.
6,8	*-teen*	1. added to ten.
6,8	*-th*	1. a state of quality of being or having. 2. an order or place of a number in a series.
6,8	*-ty*	1. tens; ten times.
6,8	*-ward,* *-wards*	1. in the direction of.
6,8	*-ways*	1. manner or direction.
6,8	*-wise*	1. direction or manner of.
6,8	*-y*	1. full of; characterized by. 2. having the characteristics of; like.

IV ADVERB SUFFIXES

6,8	*-ly*	1. like; similar.
6,8	*-ward,* *-wards*	1. in the direction of.
6,8	*-ways*	1. manner or direction.
6,8	*-wise*	1. direction or manner of.

READING: DETAILS
(GRADES 1, 2, 3, 6, AND 8)

WHAT SKILLS ARE TESTED
AND WHERE

GRADES 1, 2, 3, 6, AND 8

OBJECTIVE

The student can accurately comprehend the details in a reading selection.

EXPLANATION

Being able to comprehend details while reading is an essential skill. Details communicate a wealth of specific information. They also can indicate the sequence in which a series of events occurs. A reading selection's details must be comprehended before the selection's overall meaning can be determined.

SUBSKILLS TESTED BY GRADE

Only one subskill of the Details Objective is tested at each grade level. The following chart contains the subskill tested as part of the Details Objective. This subskill is not intended to limit the curriculum but to provide information on the aspect of the objective tested in BSAP. The X's indicate at what grade this subskill is tested.

SUBSKILLS TESTED	GRADES TESTED				
	1	2	3	6	8
1. Detail Identification The student can accurately comprehend the details in a reading selection when the details are explicitly stated.	X	X	X	X	X

READING: DETAILS
(GRADES 1, 2, 3, 6, AND 8)

HOW SKILLS ARE TESTED

GRADES 1, 2, 3, 6, AND 8

TEST ITEM OVERVIEW

The student is presented with a reading selection and asked which one of several answer choices identifies the detail representing:

1. "who,"
2. "what,"
3. "which,"
4. "where,"
5. "when,"
6. "why,"
7. "how,"
8. "how often,"
9. "how much,"
10. "how many," or
11. "in what sequence."

KEYS TO SKILL DIFFICULTY

The difficulty of the test questions is varied across grades by changing key characteristics of the skill.

The following chart summarizes how these variables are tested across grade levels for the skill.

READING: DETAILS
(GRADES 1, 2, 3, 6, AND 8)

SUMMARY CHART FOR KEYS TO SKILL DIFFICULTY

KEYS TO SKILL DIFFICULTY	TESTING LIMITS				
	GRADE 1	GRADE 2	GRADE 3	GRADE 6	GRADE 8
	DETAIL IDENTIFICATION				
TYPES OF SELECTIONS	Simple paragraphs.	Simple paragraphs and sets of non-sequential directions.	Simple paragraphs, descriptions of sequences of events, sets of non-sequential directions, and sets of sequential directions.	Stories, sets of directions, and excerpts from newspapers, magazines and books.	Newspaper articles, business letters; consumer, legal or governmental documents; and excerpts from stories.
NATURE OF SELECTIONS	A selection develops a single topic with details. A detail will be a piece of information such as a name, a quantity, an object, a characteristic, a location, etc.	A selection develops a single topic with details. A detail will be a piece of information such as a name, a quantity, an object, a characteristic, a location, etc.	A selection develops a single topic with details. A detail will be a piece of information such as a name, a quantity, an object, an action, a condition, a quality, etc. or A selection describes a sequence of events or a set of directions that are presented in sequential order. Sequential order will be made clear by key words such as: first, second, next, then, after, later, last, and finally.	A selection develops a single topic with details. A detail will be a piece of information such as a name, a quantity, an object, a reason, a characteristic, a location, a time, etc. or A selection describes events or directions that may or may not be presented in sequential order. Sequential order will be made clear by key words such as: first, second, next, then, after, later, last, and finally.	A selection develops a single topic with details. A detail will be a piece of information such as a name, a quantity, an object, a reason, a characteristic, a location, a time, etc. or A selection describes events or directions that may or may not be presented in sequential order. Sequential order will be made clear by key words such as: first second, next, then, after, later, last, and finally.

READING: DETAILS
(GRADE 1)

HOW SKILLS ARE TESTED

GRADE 1

OBJECTIVE

The student can accurately comprehend the details in a reading selection.

SUBSKILL TESTED AT GRADE 1

Only one subskill is tested for Details at Grade 1.

Detail Identification

The student can accurately comprehend the details in a reading selection when the details are explicitly stated.

SAMPLE TEST ITEMS AND DIRECTIONS

The following test item is a sample of the types administered in BSAP.

Subskill Tested: Detail Identification

Teacher says: Let's begin with Number 1. Read the story in the box. (Pause) Who is sleeping? Find the answer. (Pause) Darken the bubble next to your answer. (Pause)

The baby is playing in the house. The dog is sleeping in the yard. The cat is eating in the barn.

Who is sleeping?

○ the baby

● the dog (correct)

○ the cat

READING: DETAILS
(GRADE 2)

HOW SKILLS ARE TESTED

GRADE 2

OBJECTIVE

The student can accurately comprehend the details in a reading selection.

SUBSKILL TESTED AT GRADE 2

Only one subskill is tested for Details at Grade 2.

Detail Identification

The student can accurately comprehend the details in a reading selection when the details are explicitly stated.

SAMPLE TEST ITEMS AND DIRECTIONS

The following test item is a sample of the types administered in BSAP.

Subskill Tested: Detail Identification

Directions: (Student reads)	Read the story in the box. Answer each question after it. Darken the bubble next to your answer.

MAKING TOYS

Mary made some toys for her little brother. She painted a box to look like a truck. She put buttons on the box for wheels. Then she made a pig from an old milk bottle. She stuck some pictures on paper to make a book. She made some funny hats out of paper, too.

How did Mary make a pig?

○ from a box

● from a bottle (correct)

○ from paper

READING: DETAILS
(GRADE 3)

HOW SKILLS ARE TESTED

GRADE 3

OBJECTIVE

The student can accurately comprehend the details in a reading selection.

SUBSKILL TESTED AT GRADE 3

Only one subskill is tested for Details at Grade 3.

Detail Identification

The student can accurately comprehend the details in a reading selection when the details are explicitly stated.

SAMPLE TEST ITEMS AND DIRECTIONS

The following test item is a sample of the types administered in BSAP.

Subskill Tested: Detail Identification

Directions: (Student reads)	Read the story in the box. Answer each question after it. Darken the bubble next to your answer.

TOM COMES HOME

The room was warm, so Tom took off his coat. Then he took off his shoes because his feet hurt. Next he opened a window to let in some fresh air. Finally, Tom felt comfortable!

Why did Tom take off his shoes?

○ to get some fresh air

● because his feet hurt (correct)

○ because the room was warm

READING: DETAILS
(GRADE 6)

HOW SKILLS ARE TESTED

GRADE 6

OBJECTIVE

The student can accurately comprehend the details in a reading selection.

SUBSKILL TESTED AT GRADE 6

Only one subskill is tested for Details at Grade 6.

Detail Identification

The student can accurately comprehend the details in a reading selection when the details are explicitly stated.

READING: DETAILS
(GRADE 6)

SAMPLE TEST ITEMS AND DIRECTIONS

The following test item is a sample of the types administered in BSAP.

Subskill Tested: Detail Identification

Directions: (Student reads)	Read the selection in the box. Answer each question that follows. Mark the letter of your choice on your answer sheet.

DIRECTIONS FOR SOUP

To prepare Jensen's Tomato soup, first pour the can of soup into a small pot. Fill the empty can with cold water or milk and then add this to the soup. Place the pan on the stove over a medium flame. Stirring now and then, bring the soup to a slow boil. Allow to boil slowly two minutes. Then remove from heat and allow to cool slightly before serving. Serve with bread sticks or your favorite hot rolls and butter.

What should you do just after you fill the empty can with water or milk?

(A) place the pot on the stove

(B) stir the soup

(C) serve the soup with bread sticks or rolls

(D) add the water or milk to the soup (correct)

READING: DETAILS
(GRADE 8)

HOW SKILLS ARE TESTED

GRADE 8

OBJECTIVE

The student can accurately comprehend the details in a reading selection.

SUBSKILL TESTED AT GRADE 8

Only one subskill is tested for Details at Grade 8.

Detail Identification

The student can accurately comprehend the details in a reading selection when the details are explicitly stated.

READING: DETAILS
(GRADE 8)

SAMPLE TEST ITEMS AND DIRECTIONS

The following test item is a sample of the types administered in BSAP.

Subskill Tested: Detail Identification

Directions: (Student reads)	Read the selection in the box. Answer each question that follows. Mark the letter of your choice on your answer sheet.

DONKEY, ZEBRA, ZONKEY

From time to time, kinds of animals that never existed before are born. They come from the crossing of species within an animal family.

One such creature is called a zonkey. This new member of the horse family lives in the Jerusalem Biblical Zoo in Israel. One observer said the zonkey looks "like a donkey wearing knee socks." And why not? After all, the zonkey's father is a donkey. And those striped lower legs come from its mother, who is a zebra.

Although the zonkey is new, it's not completely alone in the family of horses. It has a sort of brother, called a debra, who is the child of a zebra father and a donkey mother. There are two known debras in the world, one in the United States and the other in England.

What is extra-special about the zonkey, though, is that it may be going to have a baby zonkey. It's so rare for animals born of two species to give birth, that zoo officials in Jerusalem are watching the zonkey with great interest.

What animal is the father of a debra?

(A) a donkey

(B) a zebra (correct)

(C) a zonkey

(D) a debra

READING: DETAILS
(GRADES 1, 2, 3, 6, AND 8)

WHAT SOME INSTRUCTIONAL CONSIDERATIONS ARE

GRADES 1, 2, 3, 6, AND 8

Instructionally, there are some other skills that ought to be considered. Although not directly tested in BSAP, these skills are related to the overall details skill and its related subskills.

1. Comprehension of question words (Grades 1, 2, 3, 6, and 8)

   The student understands the type of information required by the question words "who," "what," "where," "when," "why," "how," "which," "how much," "how many," and "how often." "Who," for example, refers to a person, while "where" refers to a place.

2. Location of information (Grades 1, 2, 3, 6, and 8).

   The student can isolate the key words in a question and use those words to locate specified details in a reading selection.

3. Identification of events (Grades 3, 6, and 8).

   The student can isolate the individual events in a selection that narrates a sequence of events.

4. Identification of sequential order (Grades 3, 6, and 8).

   The student can determine the correct chronological order for a group of events narrated in a reading selection. This includes the ability to identify the order of events relative to each other; for example, determining the event that occurs first or last or just before or just after another event.

READING: DETAILS
(GRADES 1, 2, 3, 6, AND 8)

WHAT KINDS OF ACTIVITIES MIGHT BE DEVELOPED

GRADES 1, 2, 3, 6, AND 8

Although there are clearly some instances in which a particular teaching activity would be appropriate for one grade range yet inappropriate for another, most teachers report that they can often successfully adapt an instructional activity designed for younger or older students.

The activities presented below can, with minor modifications, serve as practice for the overall details skill, the subskill tested, and the other related skills offered for instructional consideration.

These activities are intended only as examples to stimulate the teacher's thinking. The activities offer merely possibilities, not prescriptions.

EARLY GRADE POSSIBILITIES

The Big Question

This activity focuses on the various kinds of details encountered in reading and on the questions used to identify each type of detail.

1. Write a three-sentence story on the chalkboard. Omit from each sentence the word or phrase that would indicate a particular type of detail (for example, a detail about place). Put a question word cuing the kind of detail required in each blank.

   Example: Last night, there was a loud noise (where?).
   The dog went (where?) . And the cat ran (where?) .

2. Have students suggest words or phrases to fill each blank. When the story is completed, ask the type of question that corresponds to the words in each blank.

   Example: "Where was the loud noise?" "Where did the dog go?"
   "Where did the cat go?"

3. Practice other types of detail questions and answers by using the same story framework but changing the blanks to require words that answer "what," "when," "who," etc.

READING: DETAILS
(GRADES 1, 2, 3, 6, AND 8)

EARLY GRADE POSSIBILITIES (continued)

Order, Please

This activity is designed to give students practice in reading and rereading selections with careful attention to events and their sequence.

1. Have students read a short, lively, event-filled story.
2. Ask a volunteer to pantomine an event from the middle of the story.
3. After the pantomine, have another student identify the event by reading aloud the sentence in the story that describes it. (For example, "The boy drank the strange liquid.")
4. Ask a third student to pose a sequence question about the event just enacted. (For example, "What happened just after the boy drank the strange liquid?") Then another student acts out the event asked for by the question.
5. After all the events have been enacted in this manner and have been listed on the board, students can re-enact the events from beginning to end in their correct sequence as other students call out the correct sequence from the list on the board.

Read n' Run

As well as giving students practice in locating information speedily and accurately, this activity requires students to read details-comprehension questions before reading the selection on which they are based, thus reinforcing a useful test-taking strategy.

1. Divide the class into teams. In front of each team, construct a relay course with two stopping places, Point A and Point B. Point A has one details question followed by several answer choices. Point B has the reading selection upon which the questions are based.
2. At a signal from the teacher, the first runner on each team goes to that team's Point A and picks at random a details question from the box. The runner reads the question and advances with it to Point B.
3. At Point B, the runners read through the reading selection until they have found the correct answer to their question. They circle their choice on the question card, then go back to their team.
4. Each runner tags the next runner who immediately goes off to follow the same course. After players finish the course and tag the next runner, they go to the teacher to have their answers checked. If an answer choice is incorrect, the players must go to the end of their team's line-up and re-run the course until they have answered a question correctly. The team that has all its players complete the course first wins the relay.

READING: DETAILS
(GRADES 1, 2, 3, 6, AND 8)

LATER GRADE POSSIBILITIES

See the Sequence

1. Assign a story for the class to read.
2. After students have read the story, ask students to isolate the first and the last events in the story. Write the events on the chalkboard, leaving a large space between them.
3. Ask a student to name an event that occurs in the middle of the story. Place this event between the other two already listed on the chalkboard.
4. Begin questioning students about the other events in the story by asking for an identification of the event that comes just before or just after one of the events listed on the board.

   Example: "What happened just after the explorers met the strange beast?"
5. Have students respond by writing the event requested in the appropriate place on the chalkboard.
6. Allow students to take over the questioning until all the story's events are written on the chalkboard in their correct order of occurrence.

Find the Key, Unlock the Detail

This exercise calls attention to the details in a reading selection and the key words or phrases contained in those details. It also highlights the question words used to ask about the details in a reading selection.

1. Have students read a selection that is at least three paragraphs long.
2. List the question words "who," "what," "when," "where," "how," and "why" on the chalkboard. Ask the class to read the first paragraph of the selection in order to find information that corresponds to each of the question words on the list.
3. Students fill in the chart by listing key words or phrases next to the question words that they seem to answer.

READING: DETAILS
(GRADES 1, 2, 3, 6, AND 8)

LATER GRADE POSSIBILITIES (continued)

Example:

First Paragraph	
WHO	Tom Bronson, Ed Rock, Leon Evans
WHAT	traveled in a balloon
WHERE	around the world
WHEN	from June 1979-June 1980
WHY	to see the world/to have fun
HOW	hot-air balloon

4. When all the required details of the first paragraph have been listed, the class divides into as many groups as there are additional paragraphs in the story. Each group is assigned to list the details of a particular paragraph. After the groups have catalogued all their details and written them on the board, they can view and evaluate their own and one another's work.

Picky Private Eyes

This activity emphasizes the careful and accurate reading of details.

1. Distribute copies of a reading selection that has many details. Have students read the selection silently.

2. Distribute a second paper containing a modified version of the selection. In this version, certain details have been changed, although the selection is structurally the same.

READING: DETAILS
(GRADES 1, 2, 3, 6, and 8)

LATER GRADE POSSIBILITIES (continued)

ORIGINAL COPY	CHANGED COPY
Lewis sniffed the air. What was that strange odor? he wondered. Then he knew: someone in that dark house had turned on the gas!	Sam sniffed the air. What was the sweet odor? he wondered. Then he knew: someone in that cold house had turned on the heat!
Lewis panicked. "Sam!" he shouted. There was no answering voice. There was only the ticking of the old clock on the shelf to his right.	Lewis panicked. "Sam!" he shouted. There was no answering voice. There was only the ticking of the big clock on the shelf to his left.

3. Explain that certain details in the second version of the story differ from those in the first. Ask students to become detectives. They are to search out the changed details by carefully comparing the two selections and underlining words and phrases in the second version that do not match those in first.

4. If desired, tell students the number of changes to be found in order to guide them in their search. A time limit may also be imposed on the search.

5. When students have finished their detective work, have individuals identify the details they have found and have them explain how each new detail changes the story.

News Time

Newspaper articles provide an excellent source for details reading selections and activities such as this one.

1. Ask students to bring news articles to class and to compose five details questions about each article. The answers to the questions should be written on a separate sheet of paper.

2. One of the five questions should be unanswerable; that is, there is no information given in the selection that answers it. The unanswerable question should be plausible and based in some way on the selection.

READING: DETAILS
(GRADES 1, 2, 3, 6, AND 8)

LATER GRADE POSSIBILITIES (continued)

3. Students attach their articles to their questions and exchange materials with one another.

4. Students read the questions received from their classmates and then use the news articles to locate the answers. They indicate which questions have no answers given.

5. After completing the questions, students check their answers with the classmates who originated the questions.

READING: MAIN IDEA
(GRADES 1, 2, 3, 6, AND 8)

WHAT SKILLS ARE TESTED
AND WHERE

GRADES 1, 2, 3, 6, AND 8

OBJECTIVE

The student can determine the main idea of a reading selection.

EXPLANATION

The ability to comprehend the central message of a reading selection is one of the most necessary skills a competent reader must possess. Adults must comprehend the main ideas of passages in newspapers, magazines, and other types of reading selections. Children must comprehend the main ideas of school-required and nonschool-required reading selections. Throughout life, an individual will frequently face situations in which this skill is required.

SUBSKILLS TESTED BY GRADE

The following chart contains the list of subskills tested as part of the Main Idea Objective. These subskills are not intended to limit the curriculum but to provide information on those aspects of the objective tested in BSAP. The X's indicate at what grades each subskill is tested.

SUBSKILLS TESTED	GRADES TESTED				
	1	2	3	6	8
1. Restated Main Idea The student can identify a verbatim statement of the main idea when the main idea is explicitly stated in a reading selection.	X	X	X		
2. Paraphrased Main Idea The student can identify a paraphrased statement of the main idea when the main idea is explicitly stated in a reading selection.	X	X	X	X	X
3. Inferred Main Idea The student can identify an inferred statement of the main idea when the main idea is not explicitly stated in a reading selection	X	X	X	X	X

READING: MAIN IDEA
(GRADES 1, 2, 3, 6, AND 8)

HOW SKILLS ARE TESTED

(GRADES 1, 2, 3, 6, AND 8)

TEST ITEM OVERVIEW

The student is presented with a reading selection and asked to indicate which one of several answer choices best represents the selection's main idea. This answer choice may represent:

1. a restated main idea,
2. a paraphrased main idea, or
3. an inferred main idea.

KEYS TO SKILL DIFFICULTY

The difficulty of the test items is varied across grades by changing key characteristics of the skill.

The following chart summarizes how these variables are tested across grade levels for the skill and its subskills.

READING: MAIN IDEA
(GRADES 1, 2, 3, 6, AND 8)

SUMMARY CHART FOR
KEYS TO SKILL DIFFICULTY

KEYS TO SKILL DIFFICULTY	TESTING LIMITS				
	GRADE 1	GRADE 2	GRADE 3	GRADE 6	GRADE 8
ALL SUBSKILLS					
TYPES OF SELECTION	Simple paragraphs.	Simple paragraphs.	Simple nonfiction subjects and stories.	Articles from newspapers or magazines and excerpts from books.	Articles from newspapers or magazines and excerpts from books.
RESTATED MAIN IDEA					
NATURE OF SELECTION	Main idea explicitly stated in one sentence. First or last sentence of paragraph.	Main idea explicitly stated in one sentence. Anywhere in paragraph.	Main idea explicitly stated in one sentence. Anywhere in paragraph.	Not Tested.	Not Tested.
NATURE OF MAIN IDEA	Identification of a verbatim restatement of selection's main idea.	Identification of a verbatim restatement of selection's main idea.	Identification of a verbatim restatement of selection's main idea.	Not Tested.	Not Tested.
PARAPHRASED MAIN IDEA					
NATURE OF SELECTION	Main idea explicitly stated in one sentence. First or last sentence of paragraph.	Main idea explicitly stated in one sentence. Anywhere in paragraph.	Main idea explicitly stated in one sentence. Anywhere in paragraph.	Main idea explicitly stated in one sentence. Anywhere in paragraph.	Main idea explicitly stated in one sentence. Anywhere in paragraph.
NATURE OF MAIN IDEA	Identification of a paraphrase of selection's main idea.	Identification of a paraphrase of selection's main idea.	Identification of a paraphrase of selection's main idea.	Identification of a paraphrase of selection's main idea.	Identification of a paraphrase of selection's main idea.
INFERRED MAIN IDEA					
NATURE OF SELECTION	Main idea not explicitly stated. Parts of it contained in first and last sentence within selection.	Main idea not explicitly stated. Parts of it contained in one to two sentences anywhere in paragraph.	Main idea not explicitly stated. Parts of it contained in one to two sentences anywhere in paragraph.	Main idea not explicitly stated. Parts of it contained in sentences anywhere in selection.	Main idea not explicitly stated. Parts of it contained in sentences anywhere in selection.
NATURE OF MAIN IDEA	Identification of an inferred statement of selection's main idea.	Identification of an inferred statement of selection's main idea.	Identification of an inferred statement of selection's main idea.	Identification of an inferred statement of selection's main idea.	Identification of an inferred statement of selection's main idea.

READING: MAIN IDEA
(GRADE 1)

HOW SKILLS ARE TESTED

GRADE 1

OBJECTIVE

The student can determine the main idea of a reading selection.

SUBSKILLS TESTED AT GRADE 1

There is an "X" in the box next to each subskill tested at Grade 1.

☒ 1. Restated Main Idea

The student can identify a verbatim statement of the main idea when the main idea is explicitly stated in a reading selection.

☒ 2. Paraphrased Main Idea

The student can identify a paraphrased statement of the main idea when the main idea is explicitly stated in a reading selection.

☒ 3. Inferred Main Idea

The student can identify an inferred statement of the main idea when the main idea is not explicitly stated in a reading selection.

READING: MAIN IDEA
(GRADE 1)

SAMPLE TEST ITEMS AND DIRECTIONS

The following test items are samples of the types administered in BSAP.

Subskill Tested: Restated Main Idea

Teacher says: Read the story in the box. (Pause)
What is the story about? Find the answer.
(Pause) Darken the bubble next to your answer.

> Father has a car. His car is red.
> Father goes to work in his car.

What is the story about?

○ Father is a man.

● Father has a car. (correct)

○ We have a new house.

Subskill Tested: Paraphrased Main Idea

Teacher says: Read the story in the box. (Pause)
What is the story about? Find the answer.
(Pause) Darken the bubble next to your answer.

> Tom has a surprise party. The boys and
> girls play games. They all eat ice cream.

What is the story about?

● Tom's surprise party (correct)

○ A new toy

○ Tom's ball game

READING: MAIN IDEA
(GRADE 1)

SAMPLE TEST ITEMS AND DIRECTIONS (continued)

Subskill Tested: Inferred Main Idea

Teacher says: Read the story in the box. (Pause) What is the story about? Find the answer. (Pause) Darken the bubble next to your answer.

> Sue had a little yellow kitten. She played with her kitten. The kitten ran away and was lost.

What is the story about?

● Sue lost her kitten. (correct)

○ Sue likes the children.

○ The dog has a toy.

READING: MAIN IDEA
(GRADE 2)

HOW SKILLS ARE TESTED

GRADE 2

OBJECTIVE

The student can determine the main idea of a reading selection.

SUBSKILLS TESTED AT GRADE 2

There is an "X" in the box next to each subskill tested at Grade 2.

☒ 1. Restated Main Idea

The student can identify a verbatim statement of the main idea when the main idea is explicitly stated in a reading selection.

☒ 2. Paraphrased Main Idea

The student can identify a paraphrased statement of the main idea when the main idea is explicitly stated in a reading selection.

☒ 3. Inferred Main Idea

The student can identify an inferred statement of the main idea when the main idea is not explicitly stated in a reading selection.

READING: MAIN IDEA
(GRADE 2)

SAMPLE TEST ITEMS AND DIRECTIONS

The following test items are samples of the types administered in BSAP.

Subskill Tested: Restated Main Idea

Directions: (Student reads)
Read the story in the box.
Answer the question after it.
Darken the bubble next to your answer.

> Tim rides his bicycle to the park. He rides his bicycle to the store. He rides his bicycle to school. Tim rides his bicycle many places. Sometimes Tim rides his bicycle to Jill's house.

Which sentence tells the story best?

○ Jill rides her horse.

● Tim rides his bicycle many places. (correct)

○ The bicycle is at the house.

Subskill Tested: Paraphrased Main Idea

Directions: (Student reads)
Read the story in the box.
Answer the question after it.
Darken the bubble next to your answer.

> Bob wants a garden. He plants an apple tree and an orange tree. He puts seeds in the ground to grow corn. Bob plants red flowers.

Which sentence tells the story best?

● Bob starts a garden. (correct)

○ Apples are good to eat.

○ Bob plants red flowers.

READING: MAIN IDEA
(GRADE 2)

SAMPLE TEST ITEMS AND DIRECTIONS (continued)

Subskill Tested: Inferred Main Idea

Directions: (Student reads)	Read the story in the box. Answer the question after it. Darken the bubble next to your answer.

> Liza has a dog. The dog's name is Candy. One day Candy cannot walk. Liza looks at his foot. Candy's foot is hurt.

Which sentence tells the story best?

- ● Liza's dog hurts his foot. (correct)
- ○ The dog's name is Candy.
- ○ Liza has lots of friends.

READING: MAIN IDEA
(GRADE 3)

HOW SKILLS ARE TESTED

GRADE 3

OBJECTIVE

The student can determine the main idea of a reading selection.

SUBSKILLS TESTED AT GRADE 3

There is an "X" in the box next to each subskill tested at Grade 3.

☒ 1. Restated Main Idea

The student can identify a verbatim statement of the main idea when the main idea is explicitly stated in a reading selection.

☒ 2. Paraphrased Main Idea

The student can identify a paraphrased statement of the main idea when the main idea is explicitly stated in a reading selection.

☒ 3. Inferred Main Idea

The student can identify an inferred statement of the main idea when the main idea is not explicitly stated in a reading selection.

READING: MAIN IDEA
(GRADE 3)

SAMPLE TEST ITEMS AND DIRECTIONS

The following test items are samples of the types administered in BSAP.

Subskill Tested: Restated Main Idea

Directions: (Student reads)	Read the story in the box. Answer the question after it. Darken the bubble next to your answer.

THE MOON

On some nights the moon looks as round as a circle. Sometimes only a little bit of the moon shows in the sky. Tonight half of the moon shows in the sky. Tomorrow night the moon won't look the same. The moon looks different every night of the month.

What is the main idea?

○ The moon is very beautiful to look at.

● The moon looks different every night of the month. (correct)

○ Sometimes the moon looks round.

READING: MAIN IDEA
(GRADE 3)

SAMPLE TEST ITEMS AND DIRECTIONS (continued)

Subskill Tested: Paraphrased Main Idea

Directions: (Student reads)	Read the story in the box. Answer the question after it. Darken the bubble next to your answer.

ONCE A YEAR

Everyone has a birthday once a year. Even our country has a birthday. The birthday of our country is the Fourth of July. People have birthday parties for our country on the Fourth of July. Some people have parades with bands and flags for the holiday. Other people make a picnic, go to the park, or play games.

What is the main idea?

● Our country has its birthday on the Fourth of July. (correct)

○ Some people have parades with bands and flags for the holiday.

○ Birthdays in July are always a lot of fun.

READING: MAIN IDEA
(GRADE 3)

SAMPLE TEST ITEMS AND DIRECTIONS (continued)

Subskill Tested: Inferred Main Idea

Directions: (Student reads)	Read the story in the box. Answer the question after it. Darken the bubble next to your answer.

THE CIRCUS

Larry went to the circus with his grandfather. Almost all the time he was there, Larry watched the clowns. There was a very short clown and a very tall clown. Larry laughed at both clowns with their funny faces and big feet. Larry liked the clowns better than the lions he saw. He liked the clowns better than the elephants or the monkeys. Larry thought the clowns were better than anything else he saw.

What is the main idea?

● Larry liked the clowns best of all at the circus. (correct)

○ Larry's grandfather likes elephants and monkeys.

○ There was a very short clown and a very tall clown.

READING: MAIN IDEA
(GRADE 6)

HOW SKILLS ARE TESTED

GRADE 6

OBJECTIVE

The student can determine the main idea of a reading selection.

SUBSKILLS TESTED AT GRADE 6

There is an "X" in the box next to each subskill tested at Grade 6.

☐ 1. Restated Main Idea

The student can identify a verbatim statement of the main idea when the main idea is explicitly stated in a reading selection.

☒ 2. Paraphrased Main Idea

The student can identify a paraphrased statement of the main idea when the main idea is explicitly stated in a reading selection.

☒ 3. Inferred Main Idea

The student can identify an inferred statement of the main idea when the main idea is not explicitly stated in a reading selection.

READING: MAIN IDEA
(GRADE 6)

SAMPLE TEST ITEMS AND DIRECTIONS

The following test items are samples of the types administered in BSAP.

Subskill Tested: Paraphrased Main Idea

Directions: (Student reads)	Read the selection in the box. Answer the question that follows. Mark the letter of your choice on your answer sheet.

PUTTING THE BITE ON LAWBREAKERS

Bites are often part of the evidence in crimes, and now there's a new detective - the dentist. From studying the marks, dentists can find evidence that helps to catch criminals. Study often shows whether the bite marks were made in trying to get away or in an attack. Experts can also use bite marks to determine the exact time of the crime.

Bite marks can also be used to find a criminal. The blood type of the person who has made the bite can be determined. In addition, bite marks can show the arrangement of the biter's teeth. This information can be used to prove someone guilty or innocent. Take the case of a man and his two daughters who were all killed. Bite marks on two of the victims matched those of the man's son. Later, the son confessed, and this evidence was used in the trial to prove him guilty.

The best statement of the main idea is:

(A) The number of solved criminal cases has increased because dentists can now provide evidence.

(B) Bite marks were used as evidence to prove a boy killed his father and sisters.

(C) Detectives find that the study of bite marks in criminal cases is not helpful.

(D) Dentists who examine bite marks can provide information that can be used to solve crimes. (correct)

READING: MAIN IDEA
(GRADE 6)

SAMPLE TEST ITEMS AND DIRECTIONS (continued)

Subskill Tested: Inferred Main Idea

Directions: (Student reads)	Read the selection in the box. Answer the question that follows. Mark the letter of your choice on your answer sheet.

A CLEAN CAR

One man has decided that he will never again have his car washed. Why? He sent his brand new car through the line at the car wash last week. At the end of the line an employee started to drive the car out of the wash area. The worker drove out much too fast and as a result the car ran into a garbage can. The worker tried to hit the brake but stepped on the gas instead. This caused the car to zoom over the curb and slide into a pole. The vehicle next ran into two gasoline pumps and then exploded. The worker was able to jump out just before a second, bigger explosion. When it was all over, the man's car and eight others had been destroyed. The total damages were $50,000. That's a pretty expensive car wash.

The best statement of the main idea is:

(A) Car wash employees often are very careless with the cars they wash.

(B) A car wash worker's fast driving destroyed a man's car and caused many damages. (correct)

(C) One very expensive car wash is now charging $50,000 to wash and clean brand new cars.

(D) A man was able to prevent an accident from happening at a car wash last week.

READING: MAIN IDEA
(GRADE 8)

HOW SKILLS ARE TESTED

GRADE 8

OBJECTIVE

The student can determine the main idea of a reading selection.

SUBSKILLS TESTED AT GRADE 8

There is an "X" in the box next to each subskill tested at Grade 8.

☐ 1. Restated Main Idea

The student can identify a verbatim statement of the main idea when the main idea is explicitly stated in a reading selection.

☒ 2. Paraphrased Main Idea

The student can identify a paraphrased statement of the main idea when the main idea is explicitly stated in a reading selection.

☒ 3. Inferred Main Idea

The student can identify an inferred statement of the main idea when the main idea is not explicitly stated in a reading selection.

READING: MAIN IDEA
(GRADE 8)

SAMPLE TEST ITEMS AND DIRECTIONS

The following test items are samples of the types administered in BSAP.

Subskill Tested: Paraphrased Main Idea

Directions: (Student reads)	Read the selection in the box. Answer the question that follows. Mark the letter of your choice on your answer sheet.

KILLER BEES

Time and time again, those attacked by killer bees describe the insects as vicious and extremely persistent. For example, an American research team was sent to film killer bees. During one session the team came under vicious attack. Few explorations have been as frightening. Killer bees swarmed over the crew's clothing, trying to find openings. The bees penetrated under one crew member's trousers and socks, stinging him badly. In an experiment, a crew member dangled a black pouch in front of the bees. In less than a minute, the pouch was covered by more than 1000 stings.

In another incident, a South American bee squad tried to control the bees by spraying tear gas at them. The gas had no effect on the insects. It took the squad the entire night to kill or drive off the bees.

Perhaps the most shocking report is about a farmer who accidentally uncovered a hive in his fields. The bees attacked him, covered his body, crawled inside his mouth and ears, and killed him.

The best statement of the main idea is:

(A) Killer bees are commonly reported to be fierce attackers. (correct)

(B) If a black pouch is dangled in front of killer bees, they will not attack.

(C) The control of killer bees is South America's major problem.

(D) Killer bees can sting more than 1000 times in less than a minute.

READING: MAIN IDEA
(GRADE 8)

SAMPLE TEST ITEMS AND DIRECTIONS (continued)

Subskill Tested: Inferred Main Idea

Directions: (Student reads)	Read the selection in the box. Answer the question that follows. Mark the letter of your choice on your answer sheet.

VEGETABLES, ANYONE?

It used to be that Americans ate meat as often as possible. But now many people are either eating less meat or completely cutting meat out of their diets. They are making this change because they are concerned about their health. Their new eating habits offer two important advantages.

First of all, vegetables, when combined with grains, nuts, and seeds, provide essential vitamins lacking in meat. And a proper combination of vegetables and grains is equal in protein value to the finest meat. So Americans are gaining food value rather than losing it when they change their meat-eating habits.

Second, vegetables do not contain the amounts of fats or dangerous chemicals that meats do. Cattle are allowed to grow large and fat because their meat tastes better that way. In order to make their cattle grow larger, farmers often give the animals various chemicals. These substances are passed on to people when the cattle are marketed and eaten. Doctors believe that the large amounts of fat contained in such cattle can cause heart disease in many people. And health studies have shown a relationship between the chemicals fed to cattle and cancer in humans.

The best statement of the main idea is:

(A) A diet consisting of vegetables and grains provides less protein and vitamins than a diet of meat.

(B) A new, healthier trend in American eating habits sees more vegetables and grains and less meat in the diet. (correct)

(C) Americans are losing weight since they have changed their diet to vegetables and grains.

(D) Doctors believe that meats contain large amounts of fat, which can be a cause of heart disease.

READING: MAIN IDEA
(GRADES 1, 2, 3, 6, AND 8)

WHAT SOME INSTRUCTIONAL CONSIDERATIONS ARE

GRADES 1, 2, 3, 6, AND 8

Instructionally, there are some other skills that ought to be considered. Although not directly tested in BSAP, these skills are related to the overall main idea skill and its subskills.

1. Recognizing vocabulary (Grades 1, 2, 3, 6, and 8).

   The student can recognize the words used in a reading selection and understands their meanings within the context of the selection.

   This skill involves comprehension of the words which may appear in the test items measuring this objective. These words will all be drawn from specified grade levels of the South Carolina Word List.

2. Identifying a selection's major points (Grades 1, 2, 3, 6, and 8).

   The student can determine the important details in a selection. These details often appear in a position of emphasis, such as the beginning or end of a selection, or are repeated and amplified within the selection. Such important points in a selection give clues as to the selection's main idea.

3. Determining the accuracy of a potential main idea statement (Grades 1, 2, 3, 6, and 8).

   The student can determine whether a potential main idea statement is accurate according to the information contained in a reading selection. If a statement is either contradicted or unsupported by information in the selection, the statement is inaccurate. Because a correct main idea statement may be paraphrased, students mastering this skill can also discern the accuracy of paraphrases. An inaccurate paraphrase will be contradicted by information in the reading selection. The same holds true for a main idea that is implied by the selection.

4. Determining the scope of a potential main idea statement (Grades 1, 2, 3, 6, and 8).

   The student can determine whether a potential main idea statement is general enough to reflect all of a selection's major points without being so general that it is excessively broad. If a statement focuses on a detail from a selection, the statement is not appropriate in scope but too narrow in scope. If a statement overgeneralizes beyond what is in a selection, the statement is not appropriate in scope but too broad in scope.

READING: MAIN IDEA
(GRADES 1, 2, 3, 6, AND 8)

WHAT KINDS OF ACTIVITIES MIGHT BE DEVELOPED

GRADES 1, 2, 3, 6, AND 8

Although there are clearly some instances in which a particular teaching activity would be appropriate for one grade range yet inappropriate for another, most teachers report that they can often successfully adapt an instructional activity designed for younger or older students.

The activities presented below can, with minor modifications, serve as practice for the overall main idea skill, the subskills tested, and the other related skills offered for instructional consideration.

These activities are intended only as examples to stimulate the teacher's thinking. The activities offer merely possibilities, not prescriptions.

EARLY GRADE POSSIBILITIES

Pair-a-Phrase

This activity is directly related to the enabling skill of accuracy determination and might characteristically be employed following a teacher's explanation of paraphrasing. In particular, teachers will wish to help students understand the difference between accurate and inaccurate paraphrases.

1. Supply a sentence similar to the main idea statements which might be found in reading selections.
2. Ask each student to develop one accurate and one inaccurate paraphrase for the statement.
3. Have these "pairs-of-phrases" exchanged so that students can practice discriminating between accurate and inaccurate paraphrases.
4. Some examples can be put on the board and discussed by the entire class.

READING: MAIN IDEA
(GRADES 1, 2, 3, 6, AND 8)

EARLY GRADE POSSIBILITIES (continued)

Word Wagon

Students can be asked to carry a weekly load of new words in their personal "word wagon." This activity represents one way of promoting the vocabulary recognition skill.

1. Each week place a set of words from the basic skills word list on the chalkboard, possibly below a drawing of a wagon loaded with words.
2. Discuss the new words with students.

   Example: "Does anyone know what this word is?"
   "What does it mean?"

3. Students can be given the definitions for the words or asked to gather those definitions themselves during the week. Words should be studied in the context of sentences. New words should be used in reading, writing, speaking, and listening activities during the target week and subsequent weeks.

Major Points and General Confusion

This activity is aimed at promoting the skill calling for students to identify important points in a reading selection.

1. Give students teacher-constructed "reconnaissance reports" issued by a mythical Major Peter Points and directed to General Clyde Confusion. Some of the elements in the reports will be major (for example, "there are 200 tanks") and some will be irrelevant (for example, "my mother's uncle is named Mortimer").
2. Ask students to sort out the major from the irrelevant points in such reports.

Skimping on Scope

This activity is focused on the skill of determining appropriate scope and is intended to sensitize students to statements which are too narrow to satisfactorily encompass a paragraph's major points.

1. Give students short reading selections.
2. Ask students to create main idea statements based on these selections which are deliberately designed to be too narrow in their scope, that is, "don't tell enough about the paragraph".
3. Have students share their statements. Discuss any statements which do not seem to be narrow in scope.

READING: MAIN IDEA
(GRADES 1, 2, 3, 6, AND 8)

EARLY GRADE POSSIBILITIES (continued)

Original Main Idea Statements

This analogous practice, closely allied but not identical to the subskills being tested, provides a useful form of direct instruction. A secondary insight that students should gain from this activity is that there is no "one single way" to formulate accurately a main idea statement for a reading selection.

1. Give students a paragraph whose main idea may or may not be stated explicitly.
2. Then ask students to generate their own version of a main idea statement for that paragraph.
3. Have these statements subsequently judged by the rest of the class on the basis of accuracy and appropriate scope.

LATER GRADE POSSIBILITIES

Accuracy, Accuracy, Accuracy

This exercise is designed to give students practice in judging whether a reading selection provides accurate or inaccurate support for potential main idea statements.

1. Present a fairly elaborate reading passages to students.
2. Supply students with a list of statements which are or are not accurate according to the reading selection.
3. Just as in a true/false practice quiz, students are to decide whether each statement is accurate or not.
4. Discuss the statements for which there is substantial disagreement.

Scope Cope

This activity emphasizes the significance of appropriate scope as a criterion for judging potential main idea statements.

1. Give students practice exercises consisting of reading passages plus main idea statements which are either (a) too narrow, (b) too broad, or (c) "just right".
2. Have students judge the scope of each statement.
3. Statements for which there are disagreements should be discussed.

READING: MAIN IDEA
(GRADES 1, 2, 3, 6, AND 8)

LATER GRADE POSSIBILITIES (continued)

Original Main Idea Statements

1. Have students read selections of the types called for in the skill, then write out a statement of each selection's main idea.

2. Students exchange their work with each other, then critique each main idea statement on the basis of accuracy and appropriate scope.

3. Particularly good main idea statements can be read aloud and discussed by the whole class.

Copy Editor

1. Ask students to select a newspaper article and then create a main idea statement about that article which incorporates both accuracy and appropriate scope.

2. Other students are to read the article and judge whether the accompanying main idea statement is satisfactory.

3. If a statement is deemed unsatisfactory, the reviewers should write revised versions.

Listening for Main Ideas

1. Read some passages aloud to the class.

2. Have students write down, then share with each other, statements that they think reflect the main idea of each passage.

3. Apply the criteria of accuracy and appropriate scope in judging student efforts.

4. Discuss the results.

Telegraph Time

1. Have students read selections comparable to those found on the test.

2. Then ask students to create a telegraph message of no more than 10 words capturing the main idea of each selection.

3. These telegraph messages can be shared and discussed.

   NOTE: As a demanding variation, play "Telegraph in Half," which requires students to state the main idea of a passage in five words or less.

READING: REFERENCE USAGE
(GRADES 1, 2, 3, 6, AND 8)

WHAT SKILLS ARE TESTED
AND WHERE

GRADES 1, 2, 3, 6, AND 8

OBJECTIVE

The student can locate and utilize desired information in reference sources.

EXPLANATION

The ability to use various reference sources is a valuable school skill and applied skill. Occasions frequently arise when students need to be able to use references such as dictionaries, books' tables of contents and indexes, the card catalog, maps, charts, telephone directories, etc. Skill in using each reference source consists of two components: knowing when to consult a particular reference and knowing how to locate information in the reference source selected.

SUBSKILLS TESTED BY GRADE

The following chart contains the list of subskills tested as part of the Reference Usage Objective. These subskills are not intended to limit the curriculum but to provide information on those aspects of the objective tested in BSAP. The X's indicate at what grades each subskill is tested.

SUBSKILLS TESTED	GRADES TESTED				
	1	2	3	6	8
1. Selecting a Reference Source The student can select the appropriate source for requested information.	X	X	X	X	X
2. Using a Reference Source The student can use a reference source to find requested information.	X	X	X	X	X

READING: REFERENCE USAGE
(GRADES 1, 2, 3, 6, AND 8)

HOW SKILLS ARE TESTED

GRADES 1, 2, 3, 6, AND 8

TEST ITEM OVERVIEW

The student is presented with a question asking for the location of a specified type of information and then asked to indicate which one of several answer choices:

1. identifies the reference source to be consulted, or
2. identifies the requested information in the displayed answer choice.

KEYS TO SKILL DIFFICULTY

The difficulty of the test items is varied across grades by changing key characteristics of the skill.

The following chart summarizes how these variables are tested across grade levels for the skill and its subskills.

READING: REFERENCE USAGE
(GRADES 1, 2, 3, 6, AND 8)

SUMMARY CHART FOR KEYS TO SKILL DIFFICULTY

KEYS TO SKILL DIFFICULTY	TESTING LIMITS				
	GRADE 1	GRADE 2	GRADE 3	GRADE 6	GRADE 8
SELECTING A REFERENCE SKILL					
REFERENCE SOURCES ELIGIBLE FOR TESTING (DISPLAYED OR NAMED IN ANSWER CHOICES)	(displayed) Table of Contents Picture Dictionary Calendar	(displayed) Table of Contents Picture Dictionary Calendar Map Glossary	(named) Table of Contents Dictionary Map Glossary Encyclopedia Card catalog Chart Graph Table	(named) Table of Contents Dictionary Map Glossary Encyclopedia Card catalog Chart Graph Table Book index Telephone directory Newspaper classified ads	(named) Table of Contents Dictionary Map Glossary Encyclopedia Card catalog Chart Graph Table Book index Telephone directory Newspaper classified ads Newspaper index Bibliography Appendix Reader's Guide

READING: REFERENCE USAGE
(GRADES 1, 2, 3, 6, AND 8)

SUMMARY CHART FOR KEYS TO SKILL DIFFICULTY (Continued)

KEYS TO SKILL DIFFICULTY	TESTING LIMITS				
	GRADE 1	GRADE 2	GRADE 3	GRADE 6	GRADE 8
	USING A REFERENCE SOURCE				
DISPLAYS OF REFERENCE SOURCES ELIGIBLE FOR TESTING (PART OF TEST QUESTION): SOURCE COMPLEXITY (Note: portions of each source are displayed.)	Table of Contents: No titles similar. No subtitles	Table of Contents: Titles similar. No subtitles.	Table of Contents: Titles similar. Subtitles eligible.	Table of Contents: Titles and/or headings similar. Subtitles eligible.	Table of Contents: Titles and/or headings and/or authors similar. Subtitles eligible.
	Picture Dictionary: (Definitions) Entries are unfamiliar words. For each entry, an illustration and a sentence using the word are given.	Picture Dictionary: (Definitions) Entries are unfamiliar words. For each entry, an illustration and a sentence using the word, and a definition of the word are given.	Dictionary: (Definitions) Unfamiliar entry word. For the entry word, definitions representing the same part of speech are given. Sample sentences accompany each definition. (Guide words) Up to 3 letters necessary for alphabetizing.	Dictionary: (Definitions) Unfamiliar entry word. For the entry word, definitions representing different parts of speech are given. Sample sentence accompanies one definition. (Guide words) Up to 4 letters necessary for alphabetizing.	Dictionary: (Definitions) Unfamiliar entry word. For the entry word, definitions representing different parts of speech are given. Sample sentence accompanies one definition. Abbreviation key for parts of speech included. (Guide words) Up to 4 letters necessary for alphabetizing.
		Map: A map picturing streets and structures. No direction indicator included.	Map: A map picturing streets and structures. Direction indicator included.	Map: A map of street names and symbols representing places. Direction indicator and map key of symbols included.	Map: A common travel map. Direction indicator, legends, and grid coordinates included.
			Chart: Vertical and horizontal headings.	Chart: Vertical and horizontal headings.	Chart: Vertical and horizontal headings.
			Encyclopedia: (Volumes) 1 letter or a range of letters appears on each volume displayed.	Encyclopedia: (Volumes) A range of letters and a Roman numeral appears on each volume displayed.	Encyclopedia: (Volumes) A range of letters and a Roman numeral appears on each volume displayed. (Entry) A portion of an encyclopedia page showing an entry and cross-referencing.

READING: REFERENCE USAGE
(GRADES 1, 2, 3, 6, AND 8)

SUMMARY CHART FOR KEYS TO SKILL DIFFICULTY (Continued)

KEYS TO SKILL DIFFICULTY	TESTING LIMITS				
	GRADE 1	GRADE 2	GRADE 3	GRADE 6	GRADE 8
USING A REFERENCE SOURCE (CONTINUED)					
DISPLAYS OF REFERENCE SOURCES ELIGIBLE FOR TESTING (PART OF TEST QUESTION): SOURCE COMPLEXITY			Card Catalog: Author cards in alphabetical order. Up to 3 letters necessary for alphabetizing.	Card Catalog: Author and title cards in alphabetical order. Up to 4 letters necessary for alphabetizing.	Card Catalog: Author, title, and subject cards in alphabetical order. Up to 4 letters necessary for alphabetizing.
				Book Index: Major heading with one level of subheadings permitted. Several entries are similar.	Book Index: Major heading with two levels of subheadings permitted. Several entries are similar.
				Telephone Directory: White pages. Entry includes name, address, phone number.	Telephone Directory: White pages or yellow pages. Entry includes ad. Entries listed under 2 major categories.
				Newspaper Classified: Entries representing one type of classified ad (e.g., pets or real estate or merchandise, etc.)	Newspaper Classified: Entries representing one type of classified ad (e.g., pets or real estate or merchandise, etc.)
					Bibliography: Entries with author, title, date, publisher, and place of publication.
					Newspaper Index: Common entries from a familiar daily newspaper index.

READING: REFERENCE USAGE
(GRADE 1)

HOW SKILLS ARE TESTED

GRADE 1

OBJECTIVE

The student can locate and utilize desired information in reference sources.

SUBSKILLS TESTED AT GRADE 1

There is an "X" in the box next to each subskill tested at Grade 1.

☒ 1. Selecting a Reference Source

The student can select the appropriate reference source for requested information.

☒ 2. Using a Reference Source

The student can use a reference source to find requested information.

READING: REFERENCE USAGE
(GRADE 1)

SAMPLE TEST ITEMS AND DIRECTIONS

The following test items are samples of the types administered in BSAP.

Subskill Tested: Selecting a Reference Source

Teacher says: There are three different pictures. Where can you look to find out about a word? Find the answer. (Pause) Darken the bubble next to your answer.

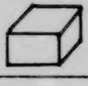
Where can you look to find a word?

○

TABLE OF CONTENTS

	Page
My Little Dog	3
The New Cat	6
See the Cows	8
Ride the Horses	10

●
(correct)

BABY		Billy is a baby.
BALL		I have a red ball.
BOY		Tom is a big boy.
BOX		There is a big box.

○

JUNE CALENDAR

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

READING: REFERENCE USAGE
(GRADE 1)

SAMPLE TEST ITEMS AND DIRECTIONS (continued)

Subskill Tested: Using a Reference Source

Teacher says: Look at what is in the box. (Pause) On what page can you find the story, "Cat in the Box"? Find the answer. (Pause) Darken the bubble next to your answer.

TABLE OF CONTENTS

Pretty Bear	6
Cat in the Box	12
The Little Red House	18
The Apple Tree	24

On what page can you find the story, "Cat in the Box"? Find the answer.

● page 12 (correct)

○ page 18

○ page 24

READING: REFERENCE USAGE
(GRADE 2)

HOW SKILLS ARE TESTED

GRADE 2

OBJECTIVE

The student can locate and utilize desired information in reference sources.

SUBSKILLS TESTED AT GRADE 2

There is an "X" in the box next to each subskill tested at Grade 2.

☒ 1. Selecting a Reference Source

The student can select the appropriate reference source for requested information.

☒ 2. Using a Reference Source

The student can use a reference source to find requested information.

READING: REFERENCE USAGE
(GRADE 2)

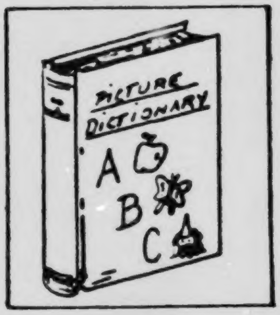
SAMPLE TEST ITEMS AND DIRECTIONS

The following test items are samples of the types administered in BSAP.

Subskill Tested: Selecting a Reference Source

Directions: (Student reads) Read the question. Find the best answer. Darken the bubble next to your answer.

You want to know where someone lives. Where do you look?


PICTURE DICTIONARY
A
B
C

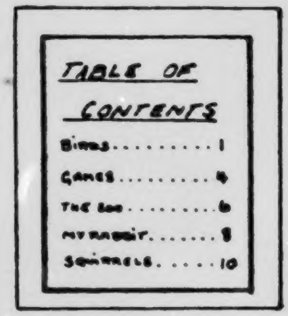
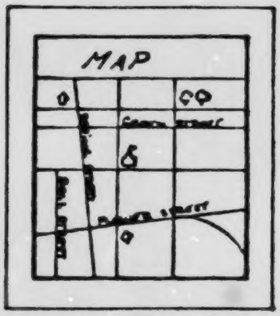


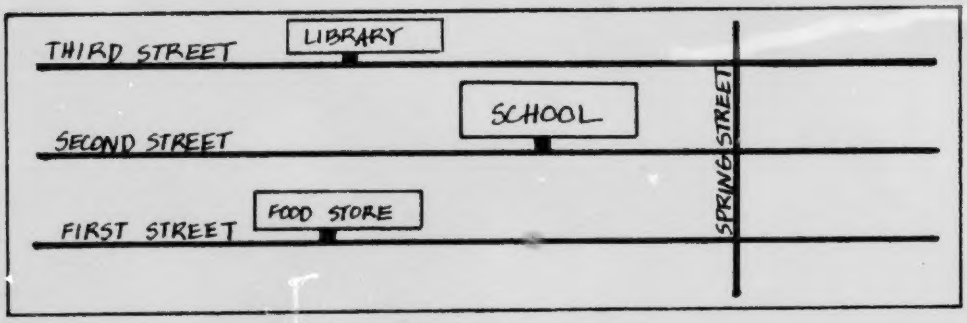
TABLE OF CONTENTS
BIRDS..........1
GAMES..........4
THE ZOO..........6
MY RABBIT.......8
SQUIRRELS.....10



○ ○ ● (correct)

Subskill Tested: Using a Reference Source

Directions: (Student reads) Read the question. Find the best answer. Darken the bubble next to your answer.


THIRD STREET
LIBRARY
SCHOOL
SECOND STREET
FOOD STORE
FIRST STREET
SPRING STREET

On what street is the food store?

- ○ Second Street
- ● First Street (correct)
- ○ Spring Street

READING: REFERENCE USAGE
(GRADE 3)

HOW SKILLS ARE TESTED
GRADE 3

OBJECTIVE

The student can locate and utilize desired information in reference sources.

SUBSKILLS TESTED AT GRADE 3

There is an "X" in the box next to each subskill tested at Grade 3.

☒ 1. Selecting a Reference Source

The student can select the appropriate reference source for requested information.

☒ 2. Using a Reference Source

The student can use a reference source to find requested information.

READING: REFERENCE USAGE
(GRADE 3)

SAMPLE TEST ITEMS AND DIRECTIONS

The following test items are samples of the types administered in BSAP.

Subskill Tested: Selecting a Reference Source

Directions: (Student reads)	Read the question. Find the best answer. Darken the bubble next to your answer.

You want to know where to find a book in the library. Where should you look?

- ○ table of contents
- ● card catalog (correct)
- ○ dictionary

Subskill Tested: Using a Reference Source

Directions: (Student reads)	Read the question. Find the best answer. Darken the bubble next to your answer.

	Hair Color	Eye Color
Jimmy	Black	Brown
Buck	Brown	Blue
Diane	Red	Green

Who has green eyes?

- ○ Jimmy
- ● Diane (correct)
- ○ Buck

READING: REFERENCE USAGE
(GRADE 6)

HOW SKILLS ARE TESTED

GRADE 6

OBJECTIVE

The student can locate and utilize desired information in reference sources.

SUBSKILLS TESTED AT GRADE 6

There is an "X" in the box next to each subskill tested at Grade 6.

☒ 1. Selecting a Reference Source

The student can select the appropriate reference source for requested information.

☒ 2. Using a Reference Source

The student can use a reference source to find requested information.

READING: REFERENCE USAGE
(GRADE 6)

SAMPLE TEST ITEMS AND DIRECTIONS

The following test items are samples of the types administered in BSAP.

Subskill Tested: Selecting a Reference Source

Directions: (Student reads)
Read the question.
Choose the best answer.
Mark the letter of your choice on your answer sheet.

Where can you find out about the history of a word?

(A) an encyclopedia

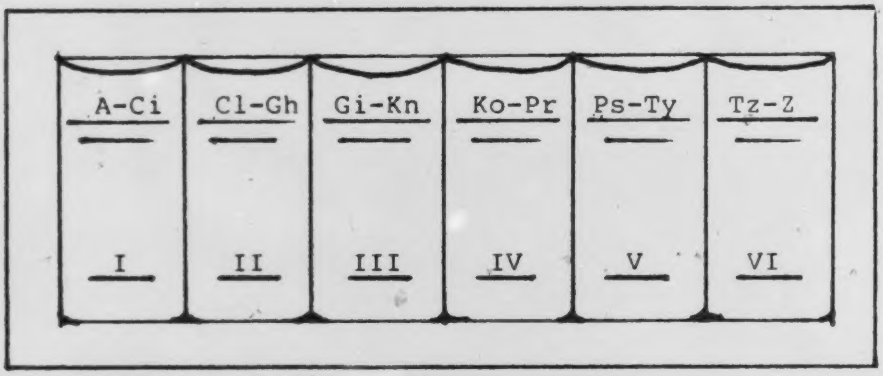
(B) an index

(C) a table of contents

(D) a dictionary (correct)

Subskill Tested: Using a Reference Source

Directions: (Student reads)
Look at the reference source.
Answer the question that follows.
Mark the letter of your choice on your answer sheet.



In which volume can you find information about George Washington Carver?

(A) Volume II

(B) Volume VI

(C) Volume I (correct)

(D) Volume III

READING: REFERENCE USAGE
(GRADE 8)

HOW SKILLS ARE TESTED

GRADE 8

OBJECTIVE

The student can locate and utilize desired information in reference sources.

SUBSKILLS TESTED AT GRADE 8

There is an "X" in the box next to each subskill tested at Grade 8.

☒ 1. Selecting a Reference Source

The student can select the appropriate reference source for requested information.

☒ 2. Using a Reference Source

The student can use a reference source to find requested information.

READING: REFERENCE USAGE
(GRADE 8)

SAMPLE TEST ITEMS AND DIRECTIONS

The following test items are samples of the types administered in BSAP.

Subskill Tested: Selecting a Reference Source

Directions: (Student reads)	Read the question. Choose the best answer. Mark the letter of your choice on your answer sheet.

Where can you find the names of used car dealers in your town?

(A) the card catalog

(B) a telephone directory (correct)

(C) a newspaper index

(D) a book's bibliography

READING: REFERENCE USAGE
(GRADE 8)

SAMPLE TEST ITEMS AND DIRECTIONS (continued)

Subskill Tested: Using a Reference Source

Directions: (Student reads)	Look at the reference source. Answer the question that follows. Mark the letter of your choice on your answer sheet.

FEATURE INDEX

Auctions	Part 2, pages 2-3, and Part 3, pages 13, 18
Business	Part 5, pages 7-30
Chess	Part 4, page 11
Drama	Arts Magazine, pages 4-9
Theatrical Films	Arts Magazine, pages 10-19
Real Estate	Part 6
Sports	Part 4
Television	Arts Magazine, page 20
Weather	Part 3, page 18

Where will you find the listing for movies on television?

(A) Arts Magazine, page 20 (correct)

(B) Arts Magazine, pages 10-19

(C) Part 4

(D) Part 5, pages 7-30

READING: REFERENCE USAGE
(GRADES 1, 2, 3, 6, AND 8)

WHAT SOME INSTRUCTIONAL CONSIDERATIONS ARE

GRADES 1, 2, 3, 6, AND 8

Instructionally, there are some other skills that ought to be considered. Although not directly stated in BSAP, these skills are related to the overall reference usage skill and its related subskills.

1. Comprehending the nature of individual reference sources (Grades 1, 2, 3, 6, and 8).

   The student understands the major uses of each of the reference sources tested.

2. Employing usage guides (Grades 1, 2, 3, 6, and 8).

   The student understands and can use a reference's usage guides as an aid to locating information in that source. The usage guides for the reference sources tested are listed below.

Reference Source	Major Usage Guides
Dictionary	-illustrations -alphabetical order -guide words -alternative definitions by meaning -abbreviation keys
Table of Contents	-category and subcategory headings
Calendar	-column headings
Map	-direction indicators -legends and keys -grid coordinates
Chart	-row and column headings
Encyclopedia	-alphabetical order -volume designations -cross-references
Card Catalog	-alphabetical order -author, subject, and title cards

READING: REFERENCE USAGE
(GRADES 1, 2, 3, 6, AND 8)

Reference Source	Major Usage Guides
Telephone Directory	-alphabetical order -category and subcategory headings
Index	-alphabetical order -category and subcategory headings
Newspaper Classified Section	-alphabetical order -category and subcategory headings
Bibliography	-alphabetical order

READING: REFERENCE USAGE
(GRADES 1, 2, 3, 6, AND 8)

WHAT KINDS OF ACTIVITIES MIGHT BE DEVELOPED

GRADES 1, 2, 3, 6, AND 8

Although there are clearly some instances in which a particular teaching activity would be appropriate for one grade range yet inappropriate for another, most teachers report that they can often successfully adapt an instructional activity designed for younger or older students.

The activities presented below can, with minor modifications, serve as practice for the overall reference usage skill, the subskills tested, and the other related skills offered for instructional consideration.

These activities are intended only as examples to stimulate the teacher's thinking. The activities offer merely possibilities, not prescriptions.

EARLY GRADE POSSIBILITIES

Riddle Me a Reference

This activity is designed to help students learn the uses and contents of various reference sources.

1. Divide the class into teams. Assign each team member a reference source. (The same reference source can be assigned more than once.)
2. Students are to make up a riddle about their reference source. Each riddle should have two clues. One clue describes a use of the assigned reference source, and the other clue describes a physical characteristic of the source. (For example, "People look in me to find words" and "I go from A to Z.")
3. One at a time, students present their riddles to members of the opposing team.
4. Teams score a point each time their members respond correctly to a riddle.
5. This activity can be varied by allowing players to name a reference source instead of giving clues. Opposing team members then give a use and a characteristic for that source.

EARLY GRADE POSSIBILITIES (continued)

Where Do You Look?

Students can reinforce their knowledge of the general content and purpose of reference sources through this activity.

1. Put sample reference sources on display in front of the class. (For example, there might be a map, a dictionary, and a book with a table of contents.)
2. Ask questions of the following type: "You want to know about a word. Where should you look?"
3. Students volunteer to answer by raising their hands. The student selected walks to the front of the room and indicates the correct reference source.
4. Students can take turns asking as well as answering the questions.

Personal References

By constructing sample reference sources, students can become more familiar with the contents and uses of these sources.

1. Students work individually or in small groups to create sample reference sources. Each sample may be actual size or even larger. A picture dictionary, for example, could be made out of regular writing paper or drawn on large sheets of poster paper.
2. Each reference source should be personalized by the students creating it. There might be a map of the school, a picture dictionary defining objects in the classroom, or a table of contents including favorite stories read in class.
3. Each personalized reference source should be organized using the types of usage guides commonly found in its real-life counterpart. Dictionary entries should be in alphabetical order, maps should have locational keys, etc.
4. After the reference sources are completed, their creators compose several questions requesting the location of specific information in the source.
5. Students exchange their reference sources and questions and answer the questions associated with other students' references.
6. After papers are checked, the reference sources that have been created can be displayed in the classroom or exchanged with other classes.

READING: REFERENCE USAGE
(GRADES 1, 2, 3, 6, AND 8)

LATER GRADE POSSIBILITIES

Reference Roundup

This activity provides a means for students to review the types of information contained in various reference sources.

1. Have students prepare questions asking for information which they may need or want to know in real life situations. For example, "Where can I find the area code to call my friend in Georgia?", "Where should I look to see if the library has any books written by Ernest Hemingway?", "Where can I find out about job opportunities in Columbia?", "Where can I look to find out the distance between South Carolina and New York?", etc.

2. Compile the questions into one master list, then duplicate and distribute this list.

3. Ask students to write the name of the reference source they would consult next to each question.

4. If there are any disagreements about which sources should be used, one or more students can be asked to research the answer by locating a copy of the reference in question and seeing if the desired information can be found.

This Is Your Life

This activity seeks to make students aware of the many times when reference sources are used.

1. Students take turns presenting an account of one day in their life. This account, which may be real or fictional, should tell about different situations which required the use of reference sources. For example, "This morning I picked up the newspaper to check the lost and found. The newspaper index told me to look in the classified advertisements. Later I wanted to call a friend so I looked in the Telephone Directory for her number. I needed to follow a map to find my way to her house..."

2. Students cannot mention a particular reference source more than once in their account. The students who incorporate the most reference sources into their account can be recognized.

3. This activity can be varied by assigning students a variety of reference sources and requiring them to fit those sources into their story.

READING: REFERENCE USAGE
(GRADES 1, 2, 3, 6 AND 8)

LATER GRADE POSSIBILIIES (continued)

Scavenger Hunt

Students will gain practice finding information in various reference sources by participating in this activity.

1. Divide the class into small groups. Each group should have access to a different reference source (e.g., one group could use the card catalog, another group could use a series of maps, another group could use a set of encyclopedias, etc.).
2. Have each group prepare questions based on the reference source they are using. Questions should ask for information which can be found by employing the usage guides associated with the particular reference source.
3. When the question sets are completed, have them duplicated and then exchanged. Now each group is given access to the other sources and given time to answer the questions associated with each source.
4. Teams score one point for each question answered correctly. Points are deducted for incorrect answers. Points are also deducted if a team has contributed unanswerable questions. Bonus points are awarded for finishing first. The team with the most points wins the scavenger hunt.

Reference Spotlight

This activity is one that can be repeated several times throughout the year. It provides students with an in-depth exposure to the various forms a given reference source can take.

1. Select a type of reference to be studied. Dictionaries might be selected, for example, or charts, or newspaper classified ads, or any other reference eligible for testing.
2. Introduce the reference through a class discussion of its general nature and purpose. Also discuss the major usage guides associated with the reference.
3. Give students a period of time (a week or two, for instance) in which to conduct a search for as many different examples of this reference source as possible. Students can consult school and public libraries, look through materials in their classroom and at home, etc.

READING: REFERENCE USAGE
(GRADES 1, 2, 3, 6, AND 8)

LATER GRADE POSSIBILITIES (continued)

4. Depending upon the nature of the reference selected for study, students should complete their search with either actual examples of the source or a summary report based upon the source.

5. If students have found examples that are transportable, they should bring those references to class. They may have collected maps by sending away to travel bureaus, or they may have saved classified advertisements from the local newspaper, etc.

6. If students have found examples that are not transportable, they should prepare a report about each source they located. This report should indicate the reference's title, then describe the source's method of organization and its major usage guides. It should conclude with a brief description of the content contained within the source.

7. Reference source examples and summary reports can be discussed and shared among members of the class.

READING: INFERENCE
(GRADES 1, 2, 3, 6, AND 8)

WHAT SKILLS ARE TESTED
AND WHERE

GRADES 1, 2, 3, 6, AND 8

OBJECTIVE

The student can make valid inferences about a reading selection.

EXPLANATION

Inference represents a powerful reading and thinking skill, the possession of which should help students in many different areas of their lives. At a fundamental level, individuals of all ages use inferences when drawing conclusions, forming opinions and attitudes, planning future actions, predicting possible outcomes, understanding cause and effect relationships, and making comparisons.

SUBSKILLS TESTED BY GRADE

The following chart contains the list of subskills tested as part of the Inference Objective. These subskills are not intended to limit the curriculum but to provide information on those aspects of the objective tested in BSAP. The X's indicate at what grade each subskill is tested.

READING: INFERENCE
(GRADES 1, 2, 3, 6, AND 8)

SUBSKILLS TESTED BY GRADE (continued)

SUBSKILLS TESTED	GRADES TESTED				
	1	2	3	6	8
1. Making Comparisons The student can make comparisons based on a reading selection.	X	X	X	X	X
2. Determining Cause and Effect The student can deduce causes and effects based on a reading selection.	X	X	X	X	X
3. Drawing Conclusions The student can draw conclusions based on a reading selection.	X	X	X	X	X
4. Predicting Outcomes The student can predict outcomes based on a reading selection.	X	X	X	X	X

READING: INFERENCE
(GRADES 1, 2, 3, 6, AND 8)

HOW SKILLS ARE TESTED

GRADES 1, 2, 3, 6, AND 8

TEST ITEM OVERVIEW

The student is presented with a reading selection and then asked to indicate which one of several answer choices:

1. makes a valid comparison,
2. identifies a determined cause or effect,
3. draws a valid conclusion, or
4. predicts an outcome based on that reading selection.

KEYS TO SKILL DIFFICULTY

The difficulty of the test questions is varied across grades by changing key characteristics of the skill.

The following chart summarizes how these variables are tested across grade levels for the skill and its subskills.

READING: INFERENCE
(GRADES 1, 2, 3, 6, AND 8)

SUMMARY CHART FOR
KEYS TO SKILL DIFFICULTY

KEYS TO SKILL DIFFICULTY	TESTING LIMITS				
	GRADE 1	GRADE 2	GRADE 3	GRADE 6	GRADE 8
ALL INFERENCE SUBSKILLS					
TYPES OF SELECTIONS	Simple stories.	Simple stories.	Simple non-fiction subjects and stories.	Simple non-fiction subjects.	Essays, editorials, articles, letters.
NATURE OF SELECTION	Two subjects described relative to the same attribute.	Three subjects described relative to the same attribute. Two of the subjects will be equivalent in relation to that attribute.	Three subjects described relative to the same attribute.	Three subjects described relative to the same attribute.	Four subjects described relative to the same attribute.
NATURE OF COMPARISON	Identification of the subject required by the comparison in the story.	Identification of the subject required by the comparison in the story.	Identification of the subject required by the comparison in the story.	Identification of the subject required by the comparison in the story.	Identification of the subject required by the comparison in the story.
DETERMINING CAUSE AND EFFECT					
NATURE OF SELECTION	A simple series of events are described.	A series of events and the circumstances surrounding those events are described.	A series of events and the circumstances surrounding those events are described.	A series of events and the circumstances surrounding those events are described.	A series of events and the circumstances surrounding those events are described.
NATURE OF CAUSE-EFFECT RELATIONSHIP	Identification of a reasonable cause for one of the events described in the story.	Identification of a reasonable cause for one of the events described in the story.	Identification of a reasonable cause for one of the events described in the story.	Identification of a reasonable cause for one of the events described in the story.	Identification of a reasonable cause for one of the events described in the story.

READING: INFERENCE
(GRADES 1, 2, 3, 6, AND 8)

SUMMARY CHART FOR
KEYS TO SKILL DIFFICULTY (Continued)

KEYS TO SKILL DIFFICULTY	TESTING LIMITS				
	GRADE 1	GRADE 2	GRADE 3	GRADE 6	GRADE 8
	DRAWING CONCLUSIONS				
NATURE OF SELECTION	Description of a simple object, profession, time of day, or action.	A single topic developed with details.	A single topic developed with details.	A single topic developed with details.	A single topic developed with details.
NATURE OF CONCLUSION	Identification of an object, location, or action that possesses the characteristics of the subject described in the story.	Identification of an object, location, or action that possesses the characteristics of the subject described in the story.	Identification of a reasonable conclusion that can be drawn based upon the information in the selection.	Identification of a reasonable conclusion that can be drawn based upon the information in the selection.	Identification of a reasonable conclusion that can be drawn based upon the information in the selection.
PREDICTING OUTCOMES					
NATURE OF SELECTION	A simple series of events.	A series of events and the circumstances surrounding those events.	A series of events and the circumstances surrounding those events.	A series of events and the circumstances surrounding those events.	A series of events and the circumstances surrounding those events.
NATURE OF PREDICTION	Identification of a reasonable action that could continue or conclude the series of actions described in the story.	Identification of a reasonable action that could continue or conclude the series of actions described in the story.	Identification of a reasonable action that could continue or conclude the series of actions described in the story.	Identification of a reasonable action that could continue or conclude the series of actions described in the story.	Identification of a reasonable action that could continue or conclude the series of actions described in the story.

READING: INFERENCE
(GRADE 1)

HOW SKILLS ARE TESTED

GRADE 1

OBJECTIVE

The student can make valid inferences about a reading selection.

SUBSKILLS TESTED AT GRADE 1

There is an "X" in the box next to each subskill tested at Grade 1.

☒ 1. Making Comparisons

The student can make comparisons based on a reading selection.

☒ 2. Determining Cause and Effect

The student can deduce causes and effects based on a reading selection.

☒ 3. Drawing Conclusions

The student can draw conclusions based on a reading selection.

☒ 4. Predicting Outcomes

The student can predict outcomes based on a reading selection.

READING: INFERENCE
(GRADE 1)

SAMPLE TEST ITEMS AND DIRECTIONS

The following test items are samples of the types administered in BSAP.

Subskill Tested: Making Comparisons

Teacher says: Read the story in the box. (Pause)
Which is nearer? Find the answer. (Pause)
Darken the bubble next to your answer.

> I see a bird and a kitten. The bird is far away in a tree. The kitten is near me.

Which is nearer?

○ the bird

● the kitten (correct)

○ the tree

Subskill Tested: Determining Cause and Effect

Teacher says: Read the story in the box. (Pause)
Why did the girl laugh: Find the answer. (Pause)
Darken the bubble next to your answer.

> The girl walks over to the clown. The clown does some tricks. The girl laughs.

Why did the girl laugh?

○ The girl was lost.

● The clown was funny. (correct)

○ The girl had a monkey.

READING: INFERENCE
(GRADE 1)

SAMPLE TEST ITEMS AND DIRECTIONS (continued)

Subskill Tested: Drawing Conclusions

Teacher says: Read the story in the box. (Pause)
What could it be? Find the answer. (Pause)
Darken the bubble next to your answer.

> I have a pet. It can fly. I can hear it sing.

What could it be?

○ a lamb

○ a cat

● a bird (correct)

Subskill Tested: Predicting Outcomes

Teacher says: Read the story in the box. (Pause)
What will Mother do? Find the answer. (Pause)
Darken the bubble next to your answer.

> Mother hears the baby cry. Mother goes near the bed. Mother holds the baby.

What will Mother do?

○ put on a new dress

● make the baby happy (correct)

○ make lunch for Father

READING: INFERENCE
(GRADE 2)

HOW SKILLS ARE TESTED

GRADE 2

OBJECTIVE

The student can make valid inferences about a reading selection.

SUBSKILLS TESTED AT GRADE 2

There is an "X" in the box next to each subskill tested at Grade 2.

☒ 1. Making Comparisons

The student can make comparisons based on a reading selection.

☒ 2. Determining Cause and Effect

The student can deduce causes and effects based on a reading selection.

☒ 3. Drawing Conclusions

The student can draw conclusions based on a reading selection.

☒ 4. Predicting Outcomes

The student can predict outcomes based on a reading selection.

READING: INFERENCE
(GRADE 2)

SAMPLE TEST ITEMS AND DIRECTIONS

The following test items are samples of the types administered in BSAP.

Subskill Tested: Making Comparisons

Directions: (Student reads)	Read the story in the box. Answer the question after it. Darken the bubble next to your answer.

> Our little town has a big hill. The school is at the top of the hill. An old barn is at the bottom of the hill. Pete's house is at the bottom of the hill too.

Which place is highest?

○ Pete's house

● the school (correct)

○ the barn

Subskill Tested: Determining Cause and Effect

Directions: (Student reads)	Read the story in the box. Answer the question after it. Darken the bubble next to your answer.

> The roof is broken. It is raining very hard outside. Nancy comes into the house. She finds a puddle of water on the floor.

Why is there water on the floor?

○ because the floor is new

○ because Nancy walked into the house

● because the roof is broken (correct)

READING: INFERENCE
(GRADE 2)

SAMPLE TEST ITEMS AND DIRECTIONS (continued)

Subskill Tested: Drawing Conclusions

Directions: (Student reads)	Read the story in the box. Answer the question after it. Darken the bubble next to your answer.

> The man works at school every day. He helps children with their work. He talks to them and reads stories to them. He asks the children questions and listens to their answers.

Who could he be?

- ● a teacher (correct)
- ○ a policeman
- ○ a bus driver

Subskill Tested: Predicting Outcomes

Directions: (Student reads)	Read the story in the box. Answer the question after it. Darken the bubble next to your answer.

> Stan is playing in the yard. He is all alone. He would like to play with a friend. His friend Johnny comes to the gate. Johnny asks to come in and play with Stan.

What will Stan most likely do?

- ● ask Johnny to come and play (correct)
- ○ go into the house to eat lunch
- ○ tell Johnny to go back home

READING: INFERENCE
(GRADE 3)

HOW SKILLS ARE TESTED

GRADE 3

OBJECTIVE

The student can make valid inferences about a reading selection.

SUBSKILLS TESTED AT GRADE 3

There is an "X" in the box next to each subskill tested at Grade 3.

☒ 1. Making Comparisons

The student can make comparisons based on a reading selection.

☒ 2. Determining Cause and Effect

The student can deduce causes and effects based on a reading selection.

☒ 3. Drawing Conclusions

The student can draw conclusions based on a reading selection.

☒ 4. Predicting Outcomes

The student can predict outcomes based on a reading selection.

READING: INFERENCE
(GRADE 3)

SAMPLE TEST ITEMS AND DIRECTIONS

The following test items are samples of the types administered in BSAP.

Directions for All Items:

Directions: (Student reads)	Read the story in the box. Answer the question after it. Darken the bubble next to your answer.

Subskill Tested: Making Comparisons

> Fred, Steve, and Linda wanted to know who ran the fastest. They all ran around the baseball field at the park. Steve finished the race first. Linda was right behind him. Fred came in last. When they all finished, they decided to rest a while.

Who ran the fastest?

○ Fred

● Steve (correct)

○ Linda

Subskill Tested: Determining Cause and Effect

> Carol's dog Lucky barked too much. He jumped all over people. He pulled Carol down the street when she walked him. Then Carol took Lucky to a school for dogs. When Lucky came back home, he was like a different dog. He didn't bark any more, and he did what he was told.

Why did Lucky start doing what he was told?

○ because he wanted to have a new home

● because he learned new things at dog school (correct)

○ because he moved with Carol to a better street

READING: INFERENCE
(GRADE 3)

SAMPLE TEST ITEMS AND DIRECTIONS (continued)

Subskill Tested: Drawing Conclusions

> John and his family are putting their things in boxes. They are moving to another city soon. His father has a new job there. John knows that he will miss all his old friends. He wishes he could stay where he has always lived.

How does John probably feel?

- ● sad about having to move to a new place (correct)
- ○ happy about being able to leave his old friends
- ○ eager to fix up his room in the new house

Subskill Tested: Predicting Outcomes

> It is a very hot afternoon. Sharon is at home playing. Her mother has left her money for something cool to eat. The ice cream man comes down Sharon's street. Sharon hears the whistle on his truck and runs outside.

What will Sharon probably do?

- ○ tell the ice cream man to go away
- ○ walk next door to visit her friend
- ● buy an ice cream bar to eat (correct)

READING: INFERENCE
(GRADE 6)

HOW SKILLS ARE TESTED

GRADE 6

OBJECTIVE

The student can make valid inferences about a reading selection.

SUBSKILLS TESTED AT GRADE 6

There is an "X" in the box next to each subskill tested at Grade 6.

☒ 1. Making Comparisons

The student can make comparisons based on a reading selection.

☒ 2. Determining Cause and Effect

The student can deduce causes and effects based on a reading selection.

☒ 3. Drawing Conclusions

The student can draw conclusions based on a reading selection.

☒ 4. Predicting Outcomes

The student can predict outcomes based on a reading selection.

READING: INFERENCE
(GRADE 6)

SAMPLE TEST ITEMS AND DIRECTIONS

The following test items are samples of the types administered in BSAP.

Subskill Tested: Making Comparisons

Directions: (Student reads)	Read the selection in the box. Answer the question after it. Mark the letter of your choice on your answer sheet.

> Parents should keep their children away from the old train yard. Even though trains haven't used it in years, there are still many dangers there. Last year alone, seven children were hurt when parts of the old wooden floor of the station broke under them. One child was trapped under the floor for six hours. The rails are another source of danger. Children try to walk along on them. Last year three children twisted their ankles by slipping off the rails. There are also many places to fall. Five children received cuts and scrapes last year when they fell into gravel pits.

Which thing in the old train yard is probably the most dangerous?

(A) the trains

(B) the wooden floor (correct)

(C) the rails

(D) the old gravel pit

READING: INFERENCE
(GRADE 6)

SAMPLE TEST ITEMS AND DIRECTIONS (continued)

Subskill Tested: Determining Cause and Effect

Directions: (Student reads)	Read the selection in the box. Answer the question after it. Mark the letter of your choice on your answer sheet.

> In 1853 a fifteen-year-old boy got a pair of ice skates for Christmas. Although it was snowing outside, he rushed out to a nearby pond to try his new skates. He skated alone at the pond for a little while. Soon he came back to his house. He started looking for something to put over his ears. He tried several different ways of covering his ears. At last he settled on two pieces of cloth attached to a half-circle of springy wire. The wire held the cloth against his ears. Then he went back outside and skated in comfort. His idea for ear covers worked so well that soon everyone else wanted them too. The boy who invented earmuffs became very famous.

Why did the boy most likely look for something to put over his ears?

(A) because his ears hurt from the cold air (correct)

(B) because he didn't want to hear the noisy children at the pond

(C) because his ears were ugly and he wanted to hide them

(D) because his mother told him to become famous

READING: INFERENCE
(GRADE 6)

SAMPLE TEST ITEMS AND DIRECTIONS (continued)

Subskill Tested: Drawing Conclusions

Directions:	Read the selection in the box.
(Student	Answer the question after it.
reads)	Mark the letter of your choice on your answer sheet.

Have you ever wondered how a dictionary is written? The people who write a dictionary don't simply give words the meanings they think are right. First writers are given groups of words to study. The writers then read all kinds of writing. They look for the way words are used. Each time writers find one of their given words, they write the word on a card. The sentence in which the word was found goes on the same card. Soon there is a stack of cards for each word. The writers sort each stack of cards and group them by the ways in which a word is used. Then they write the "definitions" or meanings. Each definition is based on what the sentences show about a word's meaning. The definitions are not the writers' own ideas about words. After all the definitions are written, the dictionary is printed for everyone to use.

Which one of the following conclusions can most reasonably be drawn from this selection?

(A) Writers who write dictionaries make up meanings for words they don't know.

(B) Many people use dictionaries when they are reading books and magazines.

(C) Dictionary writers must do a lot of research to make sure their definitions are correct. (correct)

(D) Dictionaries are arranged in alphabetical order because they are easier to use when they are that way.

READING: INFERENCE
(GRADE 6)

SAMPLE TEST ITEMS AND DIRECTIONS (continued)

Subskill Tested: Predicting Outcomes

Directions: (Student reads)	Read the selection in the box. Answer the question after it. Mark the letter of your choice on your answer sheet.

> Who says it's bad to be a picky eater? A choosy eater was partly responsible for the invention of potato chips. One night at a fancy restaurant he kept sending his french fries back to the kitchen. He would try each batch, then say the potatoes were too thick and soggy. He kept on demanding fresh batches from the kitchen. At last the cook got mad and sliced a potato into paper-thin pieces. He fried the pieces in hot oil. When the potatoes came out, they were thin and crisp and golden. The cook himself took the potatoes to the picky customer.

What most likely happened next?

(A) The cook found that the customer had already left the restaurant.

(B) The cook put mustard on the potatoes before he gave them to the customer.

(C) The picky customer refused to try the new kind of potatoes.

(D) The picky customer liked the extra-thin potatoes. (correct)

READING: INFERENCE
(GRADE 8)

HOW SKILLS ARE TESTED

GRADE 8

OBJECTIVE

The student can make valid inferences about a reading selection.

SUBSKILLS TESTED AT GRADE 8

There is an "X" in the box next to each subskill tested at Grade 8.

☒ 1. Making Comparisons

The student can make comparisons based on a reading selection.

☒ 2. Determining Cause and Effect

The student can deduce causes and effects based on a reading selection.

☒ 3. Drawing Conclusions

The student can draw conclusions based on a reading selection.

☒ 4. Predicting Outcomes

The student can predict outcomes based on a reading selection.

READING: INFERENCE
(GRADE 8)

SAMPLE TEST ITEMS AND DIRECTIONS

The following test items are samples of the types administered in BSAP.

Subskill Tested: Making Comparisons

Directions: (Student reads)	Read the selection in the box. Answer the question after it. Mark the letter of your choice on your answer sheet.

> Winds of different speeds have special names. Most people know about the very fast winds called hurricanes that tear apart everything in their path. Slower winds have names, too, and you can tell what kind of wind is blowing by looking at its effects. For instance, a fresh breeze causes small trees to sway and little waves to appear on lakes. A moderate breeze causes small branches to move and blows dust and loose paper around. A whole gale knocks down trees and causes considerable damage to buildings. A strong gale breaks branches off trees and blows shingles off of roofs.

Which kind of wind is probably the fastest?

(A) fresh breeze

(B) moderate breeze

(C) whole gale (correct)

(D) strong gale

READING: INFERENCE
(GRADE 8)

SAMPLE TEST ITEMS AND DIRECTIONS (continued)

Subskill Tested: Determining Cause and Effect

Directions:	Read the selection in the box.
(Student	Answer the question after it.
reads)	Mark the letter of your choice on your answer sheet.

> Is yellow the best color for pencils? Most people seem to think so. Yellow pencils have always sold better than pencils painted other colors. One pencil manufacturer wanted to learn why people preferred yellow for pencils. So he put a special group of 500 yellow pencils and 500 green pencils on sale. Soon he started to receive complaints about the green pencils. Some people said their points broke too easily. Other people said the green pencils were harder to sharpen. Still other people claimed that the green pencils made smudges or were scratchy to use. Nobody at all complained about the yellow pencils. The strange thing, however, was that the pencils were alike except for their color.

Why did people most likely complain about the green pencils?

(A) because the green pencils were all alike

(B) because the green pencils were ugly

(C) because the green pencils were harder to sharpen

(D) because the people were used to yellow pencils (correct)

READING: INFERENCE
(GRADE 8)

SAMPLE TEST ITEMS AND DIRECTIONS (continued)

Subskill Tested: Drawing Conclusions

Directions: (Student reads)	Read the selection in the box. Answer the question after it. Mark the letter of your choice on your answer sheet.

> A school superintendent in Ireland was often asked to fill out forms that asked questions about his one-room village school. He was particularly annoyed by yearly requests to report the size of the school's classroom. The classroom never changed size. After a while, the superintendent started reporting different sizes each year. At first, he doubled the reported dimensions of the room. When nothing happened, he continued to increase the size. After a few years he was reporting that the classroom was the biggest building in the country. The next year he reported dimensions so small that three children could not have fit in such a room. No one ever questioned the superintendent's reports, no matter how ridiculous they were.

Which one of the following conclusions can most reasonably be drawn from this selection?

(A) The classroom was the biggest building in the county.

(B) No one really cared about the size of the classroom. (correct)

(C) The superintendent thought the classroom was too small.

(D) Only three children attended the village school.

READING: INFERENCE
(GRADE 8)

SAMPLE TEST ITEMS AND DIRECTIONS (continued)

Subskill Tested: Predicting Outcomes

Directions: Read the selection in the box.
(Students Answer the question after it.
reads) Mark the letter of your choice on your answer sheet.

The land was no good. Nothing good would grow on it. It had been ruined by too many cotton crops. But George Washington Carver and his students were plowing it, getting ready to plant crops. Dr. Carver sent some of his students out to the swamps to gather leaf mold and black dirt. He sent other students to farmers for the sweepings from their barns. When the students got back, Dr. Carver helped them work the materials into the soil as food for the plants. Then they began to plant on the land. They planted crops that helped make the soil richer. They rotated their crops, planting something different each year. At last they were ready to plant cotton on the land once again. They cultivated the land carefully and planted the valuable crop. Then they waited anxiously for harvest time.

What most likely happened next?

(A) The cotton plants still didn't grow well on the land.

(B) The students stopped taking care of the crop.

(C) The cotton plants produced a great deal of cotton. (correct)

(D) Insects were allowed to destroy the whole cotton crop.

READING: INFERENCE
(GRADES 1, 2, 3, 6, AND 8)

WHAT SOME INSTRUCTIONAL CONSIDERATIONS ARE

GRADES 1, 2, 3, 6, AND 8

Instructionally, there are some other skills that ought to be considered. Although not directly tested in BSAP, these skills are related to the overall inference skill and its related subskills.

1. Understanding specialized vocabulary (Grades 1, 2, 3, 6, and 8, as applicable).

   The student can identify the meanings of the classes of comparative and relational words associated with inference. These include words of comparison such as "most," "least," and "than;" suffixes indicating comparison such as "-er" and "-est;" words denoting sequence such as "first," "next," "then," and "finally;" words indicating conditional relationships such as "if," "whenever," and "since;" and words expressing cause and effect relationships such as "because," "since," "as," and "therefore."

2. Isolating relevant statements (Grades 1, 2, 3, 6, and 8).

   The student can identify whether a reading selection contains information that pertains to a proposed inference.

3. Reasoning from evidence to conclusions (Grades 1, 2, 3, 6, and 8).

   The student can determine whether information that has been isolated as relevant to a proposed inference supports or refutes that inference.

4. Understanding causal connections (Grades 1, 2, 3, 6, and 8).

   The student can identify plausible causes for an event and differentiate those from unlikely causes. This skill includes understanding that just because one event occurs prior to another event, the first event is not necessarily the cause of the second.

5. Judging the reasonableness of actions (Grades 1, 2, 3, 6, and 8).

   The student can determine whether predicted future actions are plausible. This skill requires judging such actions according to expectations established by both past personal experiences and a general knowledge of how events usually occur.

READING: INFERENCE
(GRADES 1, 2, 3, 6, AND 8)

WHAT KINDS OF ACTIVITIES MIGHT BE DEVELOPED

GRADES 1, 2, 3, 6, AND 8

Although there are clearly some instances in which a particular teaching activity would be appropriate for one grade range yet inappropriate for another, most teachers report that they can often successfully adapt an instructional activity designed for younger or older students.

The activities presented below can, with minor modifications, serve as practice for the overall inference skill, the subskills tested, and the other related skills offered for instructional consideration.

These activities are intended only as examples to stimulate the teacher's thinking. The activities offer merely possibilities, not prescriptions.

EARLY GRADE POSSIBILITIES

What's the Reason?

This activity is designed to help students understand that inferences are made based upon reasons.

1. Write a declarative statement on the chalkboard. This statement should be an inference that could be drawn from observable evidence.

   Examples: John's dog Champ is sick.
   Sarah likes to play baseball.
   Amy and Pete are good friends.

2. Tell students that the statement you have written is an inference someone made based upon reasons. Unfortunately, however, the reasons for the inference have been lost.

3. Ask students to supply reasons that can support the statement on the board. These reasons may be presented orally or in writing.

4. Discuss the validity of each reason that is suggested. Is the reason related to the inference? If so, does the reason support the inference or is it contradicted by the inference?

5. After a list of possible reasons has been compiled and validated, remind students that inferences are always made based upon reasons.

READING: INFERENCE
(GRADES 1, 2, 3, 6, AND 8)

EARLY GRADE POSSIBILITIES (continued)

Guess Who

This activity is designed to promote attention to detail and the evaluation of evidence. It will probably be most useful if undertaken after a class discussion of the nature of evidence.

1. Have students write anonymous, first-person descriptions of themselves. Those descriptions should be composed entirely of details. The details should be simple ones, such as physical attributes, routine activities, and likes or dislikes. Other students should be able to recognize the details characteristic of the student writing the description.

2. Collect and redistribute the descriptions, making sure that each student gets someone else's paper.

3. Give students a few minutes to read the descriptions they have received and formulate an opinion about who is described.

4. One at a time, have students read the descriptions aloud and then present their conclusions as to who is described.

5. Discuss the accuracy of the descriptions and the conclusions that have been drawn from them.

Wrap It Up

This activity requires the use of inference in order to predict a story's outcome.

1. Select a short story which students have not heard or read before. A mystery story or a story with a surprise ending might work particularly well. Note the place in the story where there is a culmination or a sudden turn of events which foreshadows but doesn't "give away" the ending.

2. Read the story aloud up to the point marked, then ask students too write down their ideas about how the story will end. You may also let students present the endings orally rather than write them down.

3. Ask individual students to read their conclusions aloud. They must also back up their inferences with evidence from the story.

4. Discuss the reasonableness of each possible outcome.

5. Finally, read aloud the actual conclusion of the story. Ask students to compare the real conclusion with their own suggestions in terms of validity and reasonableness.

READING: INFERENCE
(GRADES 1, 2, 3, 6, AND 8)

EARLY GRADE POSSIBILITIES (continued)

Story Puzzle

Depending on the complexity of the material used, this activity can be used to promote an understanding of simple sequences, cause and effect relationships, drawing conclusions or predicting outcomes.

1. Find a story that the class has not heard or read before. Copy certain parts of the story on cards. Select events and details that could be inferred (descriptive adjectives, events at a specific point in a sequence, causes or effects, etc.). Distribute these cards with pieces of the story to various students.
2. Having marked the parts of the story where you took out information, read the story aloud to the class. Stop at the points where cut-out segments need to be inserted.
3. Ask students to refer to their cards and indicate when they think they have the next part of the story. Have this part read aloud. If there are any disagreements, discuss which excerpt seems to come next, and why.

LATER GRADE POSSIBILITIES

Tossed Adjectives

This activity encourages students to make valid inferences about characters, places, and events.

1. Select a short story that contains descriptions of a number of characters, places, and events.
2. Make a list of adjectives which are not used in the story but could accurately describe characters, places, and events mentioned in the story.
3. Distribute the list of adjectives and the story to students. Ask them to read the story and then note which adjectives on their list can be used to describe elements in the story.
4. Discuss the students' choices, in each case asking students to support their choices with evidence from the story.

READING: INFERENCE
(GRADES 1, 2, 3, 6, AND 8)

LATER GRADE POSSIBILITIES (continued)

What's Wrong?

This activity can be used at any level to increase students' ability to understand and interpret evidence. At the upper levels, it might be be used in conjunction with discussion of the four specific types of inferences which are tested, demonstrating the kinds of evidence required to make each type of inference valid.

1. Select a reading passage that can support one or more of the types of inferences tested (a conclusion, for example, or a comparison). Write down one valid and several invalid inferences based on the passage.

2. Distribute copies of the reading selection to students and have them read it carefully.

3. Read aloud the prepared inferences one at a time and ask students to judge the validity of each statement. Students should support their judgments with evidence from the story.

Who Is It?

This adaptation of the Guess Who activity suggested for earlier grades promotes attention to detail and the application of evidence.

1. Have students write anonymous, first-person descriptions of themselves, using only details. The details selected should be subtle, such as habits or attitudes. The challenge should be for each student to describe himself or herself through "hints" or "clues."

2. Collect and redistribute the descriptions, making sure that each student gets someone else's paper.

3. Give students a few minutes to read over the descriptions and formulate an opinion about whose paper they have received.

4. Have students read the descriptions aloud to the class and then present their conclusions as to the person described.

5. Discuss the validity of the descriptions and the conclusions that have been drawn from them.

READING: INFERENCE
(GRADES 1, 2, 3, 6, AND 8)

LATER GRADE POSSIBILITIES (continued)

Don't Jump to Conclusions

In this activity, students determine whether a given inference is correct based upon statements offered in its support.

1. Prepare a set of statements accompanied by both valid and invalid inferences that can be made based on each statement.

   Examples: All the pears in that basket are ripe.
   All these pears are from that basket.

   Inf. 1 All these pears are ripe.
   Inf. 2 None of these pears is ripe.
   Inf. 3 These pears are pretty.

2. Ask students to select the most plausible inference based upon the supporting statements.

3. Discuss why the inferences that were not selected are incorrect.

Believing What You Read

This activity helps students determine whether evidence supports a particular inference.

1. Have students bring to class advertisements from newspapers and magazines.

2. Ask various students to read their ads aloud to the class.

3. The class is to identify the inferences that advertisers want those who read each ad to make.

4. Next have students identify the reasons that are given in the ad for believing each inference.

5. Appraise those reasons by discussing whether they support the inference the advertisers want the public to make.

LATER GRADE POSSIBILITIES (continued)

The Jury Is Out

This activity focuses on a variety of skills which foster good inference-making, from isolating the relevant statements that pertain to a proposed inference to judging whether those statements support or refute an inference.

1. Set up a mock trial. Have students volunteer to play various roles: judge, prosecutor, defender, jury member, defendant, witness, etc.

2. Either present the charges and evidence against the defendant to the class or have certain members of the class come up with that information. Participants in the trial can be given specifics to which other class members do not have access. These can include details about the case or details about how they will testify. In addition, the jury members can be given information about their various beliefs, attitudes, occupations, ages, etc.

3. The prosecutor and defender present their cases to the class. Each should try to present evidence to support the plea (i.e., the inference) they want the jury to believe.

4. After the case is presented, the jury should begin its deliberations. The deliberations of the jury should include the isolation of relevant evidence and the determination of whether this evidence supports or refutes the charge against the defendant.

5. The trial ends when the jury presents its verdict to the class.

READING: ANALYSIS OF LITERATURE
(GRADES 1, 2, 3, 6, AND 8)

WHAT SKILLS ARE TESTED
AND WHERE

GRADES 1, 2, 3, 6, AND 8

OBJECTIVE

The student can critically analyze a reading selection.

EXPLANATION

Through literature--whether it be essays, poetry, or fiction--students gain knowledge about themselves and the world in which they live. Literature also provides students with examples of how language can be used to communicate feelings and perceptions effectively. The reading skills that are needed to analyze literature critically can also be used by students in their other reading and thinking.

SUBSKILLS TESTED BY GRADE

The following chart contains the list of subskills tested as part of the Analysis of Literature Objective. These subskills are not intended to limit the curriculum but to provide information on those aspects of the objective tested in BSAP. The X's indicate at what grades each subskill is tested.

READING: ANALYSIS OF LITERATURE
(GRADES 1, 2, 3, 6, AND 8)

SUBSKILLS TESTED BY GRADE (continued)

SUBSKILLS TESTED	GRADES TESTED				
	1	2	3	6	8
1. Nature of Information The student can identify the nature of the information presented in a reading selection.	X	X	X	X	X
2. Structural Elements The student can identify the structural elements utilized in a reading selection.	X	X	X	X	X
3. Rhetorical Devices The student can identify the rhetorical devices utilized in a reading selection.	X	X	X	X	X
4. Critical Analysis The student can identify the relationship between structural elements in a reading selection.					X

READING: ANALYSIS OF LITERATURE
(GRADES 1, 2, 3, 6, AND 8)

HOW SKILLS ARE TESTED

GRADES 1, 2, 3, 6, AND 8

TEST ITEM OVERVIEW

The student is typically presented with a short literary selection and asked to indicate which one of several answer choices:

1. identifies the nature of information presented (fantasy, fact, opinion, etc.),
2. accurately describes a specified structural element (setting, theme, mood, point of view, etc.),
3. identifies specific rhetorical devices (rhyme, simile, metaphor, etc.), or
4. identifies the relationship between two structural elements.

KEYS TO SKILL DIFFICULTY

The difficulty of the test items is varied across grades by changing key characteristics of the skill.

The following chart summarizes how these variables are tested across grade levels for the skill and its subskills.

READING: ANALYSIS OF LITERATURE
(GRADES 1, 2, 3, 6, AND 8)

SUMMARY CHART FOR KEYS TO SKILL DIFFICULTY

KEYS TO SKILL DIFFICULTY	TESTING LIMITS				
	GRADE 1	GRADE 2	GRADE 3	GRADE 6	GRADE 8
NATURE OF INFORMATION					
Eligible Information	Fantasy (Def. 1) Realism (Def. 1) See p. 175.	Fantasy (Def.1&2) Realism (Def.1&2) See p. 175.	Fantasy (Def.1-3) Realism (Def.1-3) See p. 175.	Fact Opinion See p. 175.	Fact Opinion See p. 175.
Nature of Selection	Three sentences presented, one sentence telling about something make-believe.	Three sentences presented, one sentence telling about something make-believe.	Three sentences presented, one sentence telling about something make-believe.	Selection on a non-fiction subject. Mixture of fact and opinion presented.	Selection on a non-fiction subject. Mixture of fact and opinion presented.
Sentence Form	Same subject in each sentence.	Sentences form a story.	Sentences form a story.	Not applicable.	Not applicable.
RHETORICAL DEVICES					
Eligible Rhetorical Devices	Rhyme See pp. 176-177.	Rhyme See pp. 176-177.	Simile See pp. 176-177.	Simile, metaphor, personification, onomatopoeia See pp. 176-177.	Simile, metaphor, personification, onomatopoeia, alliteration See pp. 176-177.
Nature of Selection	Poem	Poem	Poem	Poem	Poem
Length of Poem	24 words maximum, 4 lines	24 words maximum, 4 lines	40 words maximum, 3 lines	6-12 lines maximum	6-12 lines maximum
Structure of Poem	Simple rhyme.	Simple rhyme.	1 simile using the word "like" or "as." Other forms of comparison will not be used.	At least 2 of the eligible rhetorical devices are used.	At least 3 of the eligible rhetorical devices are used.
STRUCTURAL ELEMENTS					
Eligible Structural Elements	Plot, character, setting (Def. 1) See pp. 175-176.	Plot, character, setting (Def. 1, may be indirectly stated) See pp. 175-176.	Plot, character, setting (Def. 1 & 2, may be indirectly stated) See pp. 175-176.	Plot, character, setting (Def. 1-3, may be indirectly stated), theme See pp. 175-176.	Plot, character, theme, point of view, mood See pp. 175-176.
Nature of Selection	Story	Story	Story	Brief narrative or dramatic passage.	Brief narrative or dramatic passage.
CRITICAL ANALYSIS					
Eligible Structural Elements	Not tested	Not tested	Not tested	Not tested	See pp. 175-177.
Nature of Selection	Not tested	Not tested	Not tested	Not tested	Brief narrative or dramatic passage.

READING: ANALYSIS OF LITERATURE
(GRADE 1)

HOW SKILLS ARE TESTED

GRADE 1

OBJECTIVE

The student can critically analyze a reading selection.

SUBSKILLS TESTED AT GRADE 1

There is an "X" in the box next to each subskill tested at Grade 1.

☒ 1. Nature of Information

The student can identify the nature of information presented in a reading selection.

☒ 2. Structural Elements

The student can identify the structural elements utilized in a reading selection.

☒ 3. Rhetorical Devices

The student can identify the rhetorical devices utilized in a reading selection.

☐ 4. Critical Analysis

The student can identify the relationship between structural elements in a reading selection.

READING: ANALYSIS OF LITERATURE
(GRADE 1)

SAMPLE TEST ITEMS AND DIRECTIONS

The following test items are samples of the types administered in BSAP.

Subskill Tested: Nature of Information

Teacher says: Find the sentence that tells about something make-believe. (Pause) Darken the bubble next to your answer.

Find the sentence that tells about something make-believe.

○ The boy is at school.

○ The boy has a dog.

● The boy jumps over the house. (correct)

Subskill Tested: Structural Elements

Teacher says: Read the story in the box. (Pause) Where did the story happen? Find the answer. (Pause) Darken the bubble next to your answer.

> A boy eats lunch in the park. A little bird comes near him. The boy gives the bird some food.

Where does the story happen?

○ in the boy's house

○ in school

● in the park (correct)

READING: ANALYSIS OF LITERATURE
(GRADE 1)

SAMPLE TEST ITEMS AND DIRECTIONS (continued)

Subskill Tested: Rhetorical Devices

Teacher says: Read the poem in the box. (Pause) Which words in the poem rhyme? Find the answer. (Pause) Darken the bubble next to your answer.

Do you know why
I want to fly?
So I can see
Way up the tree.

Which words in the poem rhyme?

○ me and bee

○ why and see

● see and tree (correct)

READING: ANALYSIS OF LITERATURE
(GRADE 2)

HOW SKILLS ARE TESTED

GRADE 2

OBJECTIVE

The student can critically analyze a reading selection.

SUBSKILLS TESTED AT GRADE 2

There is an "X" in the box next to each subskill tested at Grade 2.

☒ 1. Nature of Information

The student can identify the nature of information presented in a reading selection.

☒ 2. Structural Elements

The student can identify the structural elements utilized in a reading selection.

☒ 3. Rhetorical Devices

The student can identify the rhetorical devices utilized in a reading selection.

☐ 4. Critical Analysis

The student can identify the relationship between structural elements in a reading selection.

READING: ANALYSIS OF LITERATURE
(GRADE 2)

SAMPLE TEST ITEMS AND DIRECTIONS

The following test items are samples of the types administered in BSAP.

Subskill Tested: Nature of Information

Directions: (Student reads)	Read the question. Find the best answer. Darken the bubble next to your answer.

Which sentence tells about something make-believe?

○ A man wore a blue suit to town.

○ An old woman with gray hair pointed at him.

● The man's blue suit turned into white feathers. (correct)

Subskill Tested: Structural Elements

Directions: (Student reads)	Read the story in the box. Answer the question after it. Darken the bubble next to your answer.

> Ann got up early. She reached under her bed. She pulled out a little toy boat. It was new and bright. She covered the boat with blue paper. She put a birthday card on it. She took it to her brother in his room. Then she wished him a happy birthday.

What happened in the story?

○ Ann found a toy in her brother's room.

● Ann gave her brother a toy for his birthday. (correct)

○ Ann got up early to take a boat trip.

READING: ANALYSIS OF LITERATURE
(GRADE 2)

SAMPLE TEST ITEMS AND DIRECTIONS (continued)

Subskill Tested: Rhetorical Devices

Directions: (Student reads)	Read the poem in the box. Answer the question after it. Darken the bubble next to your answer.

Every night I stand and wait
To feed the ducks outside my gate
I give them bread and water, too
"Quack-quack" they say and we "thank you!"

Which of these words in the poem rhyme?

- ● wait and gate (correct)
- ○ gate and too
- ○ fly and my

READING: ANALYSIS OF LITERATURE
(GRADE 3)

HOW SKILLS ARE TESTED
GRADE 3

OBJECTIVE

The student can critically analyze a reading selection.

SUBSKILLS TESTED AT GRADE 3

There is an "X" in the box next to each subskill tested at Grade 3.

☒ 1. Nature of Information

The student can identify the nature of information presented in a reading selection.

☒ 2. Structural Elements

The student can identify the structural elements utilized in a reading selection.

☒ 3. Rhetorical Devices

The student can identify the rhetorical devices utilized in a reading selection.

☐ 4. Critical Analysis

The student can identify the relationship between structural elements in a reading selection.

READING: ANALYSIS OF LITERATURE
(GRADE 3)

SAMPLE TEST ITEMS AND DIRECTIONS

The following test items are samples of the types administered in BSAP.

Subskill Tested: Nature of Information

Directions: (Student reads)	Read the question. Find the best answer. Darken the bubble next to your answer.

Which sentence tells about something make-believe?

● One day a giant came to Mary's front door. (correct)

○ Mary climbed over the fence to her neighbor's house.

○ Mary's neighbor was a circus clown.

Subskill Tested: Structural Elements

Directions: (Student reads)	Read the story in the box. Answer the question after it. Darken the bubble next to your answer.

SOMETHING SPECIAL

Jill was painting a special picture. She mixed just the right colors for each part of her picture. She held her brush and painted very slowly. She made sure that the paint went just where she wanted it. When she finished, she was very happy. Her picture was special indeed.

What does the story show about Jill?

○ Jill is sad.

○ Jill is lazy.

● Jill is careful. (correct)

READING: ANALYSIS OF LITERATURE
(GRADE 3)

SAMPLE TEST ITEMS AND DIRECTIONS (continued)

Subskill Tested: Rhetorical Devices

Directions: (Student reads)	Read the poem in the box. Answer the question after it. Darken the bubble next to your answer.

BABY

Mom's new baby
Doesn't have any hair at all.
His head looks like a tiny ball.

Which two things are compared in the poem?

- ○ Mom and her new baby
- ○ a baby and its hair
- ● the baby's head and a tiny ball (correct)

READING: ANALYSIS OF LITERATURE
(GRADE 6)

HOW SKILLS ARE TESTED
GRADE 6

OBJECTIVE

The student can critically analyze a reading selection.

SUBSKILLS TESTED AT GRADE 6

There is an "X" in the box next to each subskill tested at Grade 6.

☒ 1. Nature of Information

The student can identify the nature of information presented in a reading selection.

☒ 2. Structural Elements

The student can identify the structural elements utilized in a reading selection.

☒ 3. Rhetorical Devices

The student can identify the rhetorical devices utilized in a reading selection.

☐ 4. Critical Analysis

The student can identify the relationship between structural elements in a reading selection.

READING: ANALYSIS OF LITERATURE
(GRADE 6)

SAMPLE TEST ITEMS AND DIRECTIONS

The following test items are samples of the types administered in BSAP.

Subskill Tested: Nature of Information

Directions: (Student reads)	Read the selection in the box. Answer each question that follows. Mark the letter of your choice on your answer sheet.

(1) Tall buildings are really dangerous. (2) Last week there was a fire on the twelfth floor of a hotel in my town. (3) Three people were killed. (4) Two others were seriously injured. (5) They were both sent to the hospital. (6) If the building were not so tall, these injuries and deaths could have been avoided. (7) The firemen could have saved those five people from any harm. (8) Tall buildings should be torn down.

Look at sentences 1-4 above. Which one states an opinion?

(A) Sentence 1 (correct)

(B) Sentence 2

(C) Sentence 3

(D) Sentence 4

READING: ANALYSIS OF LITERATURE
(GRADE 6)

SAMPLE TEST ITEMS AND DIRECTIONS (continued)

Subskill Tested: Structural Elements

Directions: (Student reads)	Read the story in the box. Answer each question that follows. Mark the letter of your choice on your answer sheet.

THE HIKE

"Who's the sissy now? Kathy smiled mischievously. Everything was still in the canyon, except for the rattlesnake curled just inches away from Dan's leg. Kathy bent down to pick up a stick. Dan looked at his sister's face and remembered his own words.

"Boy, are you a sissy!" Dan had teased when Kathy suggested they take a rest. "I'll go look around while you rest your weak bones!" But later when Dan yelled for help, Kathy was there.

Dan held his breath. It was the hottest part of the afternoon. Carefully, Kathy poked the stick against the dirt. It sounded like a drum. Gradually, the snake began to move away from Dan and towards Kathy's stick. Soon Dan could move quietly to Kathy's side. Then Kathy dropped the stick, and they ran back to a safe place near the river.

"Wow, Sis," said Dan. "You were really brave back there!"

"That's what you think," laughed Kathy. "I was scared to death! I just couldn't pass up a chance to teach you a lesson!"

Which of the following is the best description of the setting in the story above?

(A) It is a quiet evening in the mountains.

(B) It is a hot afternoon in the canyon. (correct)

(C) It is about a girl who shows how brave she is.

(D) It is about a brother and sister on a hike.

READING: ANALYSIS OF LITERATURE
(GRADE 6)

SAMPLE TEST ITEMS AND DIRECTIONS (continued)

Subskill Tested: Rhetorical Devices

Directions: (Student reads)	Read the poem in the box. Answer each question that follows. Mark the letter of your choice on your answer sheet.

NIGHT TRAVEL

Every night dreams appear
like swans in my room.
With their wings they carry me away
to places I shall never see
in the day.

Every morning as the sun appears
I remember nothing.
My dreams are white feathers
fallen on the floor.

A simile uses the words "like" or "as" to compare two things that are different in most ways. Which of the following lines from the poem contains a simile?

(A) "Every morning as the sun appears
I remember nothing."

(B) "Every night dreams appear
like swans in my room." (correct)

(C) "With their wings they carry me away"

(D) "to places I shall never see"

READING: ANALYSIS OF LITERATURE
(GRADE 8)

HOW SKILLS ARE TESTED

GRADE 8

OBJECTIVE

The student can critically analyze a reading selection.

SUBSKILLS TESTED AT GRADE 8

There is an "X" in the box next to each subskill tested at Grade 8.

☒ 1. Nature of Information

The student can identify the nature of information presented in a reading selection.

☒ 2. Structural Elements

The student can identify the structural elements utilized in a reading selection.

☒ 3. Rhetorical Devices

The student can identify the rhetorical devices utilized in a reading selection.

☒ 4. Critical Analysis

The student can identify the relationship between structural elements in a reading selection.

READING: ANALYSIS OF LITERATURE
(GRADE 8)

SAMPLE TEST ITEMS AND DIRECTIONS

The following test items are samples of the types administered in BSAP.

Subskill Tested: Nature of Information

Directions: (Student reads)	Read the selection in the box. Answer each question that follows. Mark the letter of your choice on your answer sheet.

(1) I set my clock ahead an hour last night. (2) Twice every year people change their clocks by an hour. (3) They set the time back in the fall and ahead in the spring. (4) This changing of the clock is a nuisance. (5) It causes everyone a lot of trouble. (6) Last fall I forgot to change the time, and I overslept for work. (7) People ought to settle on one time or another. (8) It's a bad idea to keep changing the time.

Look at sentences 5-8 above. Which one states a fact?

(A) Sentence 5

(B) Sentence 6 (correct)

(C) Sentence 7

(D) Sentence 8

READING: ANALYSIS OF LITERATURE
(GRADE 8)

SAMPLE TEST ITEMS AND DIRECTIONS (continued)

Subskill Tested: Structural Elements

Directions: (Student reads)
Read the story in the box.
Answer each question that follows.
Mark the letter of your choice on your answer sheet.

PETER

I don't remember what Peter and I said the first time we met. Mostly I remember liking him and feeling flattered because he watched my face closely as I talked. His eyes were deep brown and friendly. They seemed to hear as well as see things.

After school, I walked home with Lisa. I noticed Peter walking ahead of us down the street and called to him. He didn't even look around.

"Strange," I said to Lisa. "I hope he isn't mad at me."

"He couldn't hear you." Lisa said. "He's deaf. Didn't you know?"

"You're crazy!"

"Honest, Julie! He's in my math class. Our teacher told us all about him."

I stared at Lisa a moment. She was my best friend, but I knew she loved practical jokes.

"Lisa, I talked to him. He heard everything I said."

"No, he didn't, Julie. He read your lips. He's very good at it."

Lisa looked as if she were telling the truth. And what if she were? I wondered. Would that make Peter less important to me? I remembered those brown eyes, the warmth they made me feel. No, I decided suddenly. His being deaf wouldn't matter a bit.

Who is the narrator of the story above?

(A) Julie (correct)

(B) Peter

(C) Lisa

(D) someone who knows all of Julie's and Peter's thoughts

READING: ANALYSIS OF LITERATURE
(GRADE 8)

SAMPLE TEST ITEMS AND DIRECTIONS (continued)

Subskill Tested: Rhetorical Devices

Directions: (Student reads)	Read the poem in the box. Answer each question that follows. Mark the letter of your choice on your answer sheet.

FRIENDS AGAIN

I remember
our becoming friends again
down by the sea.
The soft fog was
like a donkey's back,
a gentle gray.
Gulls hovered, sending telegrams
through the fog.
You waved to me
and a soft rain fell.

Personification means describing anything that is not human as though it were human. Which of the following lines from the poem contains an example of personification?

(A) "I remember"

(B) "our becoming friends again"

(C) "You waved to me"

(D) "Gulls hovered, sending telegrams through the fog." (correct)

READING: ANALYSIS OF LITERATURE
(GRADE 8)

SAMPLE TEST ITEMS AND DIRECTIONS (continued)

Subskill Tested: Critical Analysis

Directions: (Student reads)	Read the selection in the box. Answer each question that follows. Mark the letter of your choice on your answer sheet.

CLEANING CREW

Mike knew that something strange had happened the minute he walked in the front door. At first, he didn't notice any details. Nonetheless, he felt "in his bones" that things had changed while he was gone.

Gradually, as he walked slowly through the room, Mike began to notice that things in the room had been moved. He had dropped his coat on the chair by the door as he left that morning. It had already been warm out, and he'd decided he wouldn't need it. Now the coat was folded neatly across the back of the chair. The cup and plate that he'd left on the coffee table were now stacked neatly in the sink.

Suddenly it hit Mike that someone had cleaned up the place! He stood still in the middle of the room and looked around him. His bed was made. His dirty clothes, which he had intended to get to this very afternoon, seemed to have disappeared altogether!

There was no question about it. Someone had decided to give him a hand in keeping his quarters clean. But who? And beyond that, why?

What happens in the story to create a mood of mystery?

(A) Mike returns home and discovers that something is different about his room. (correct)

(B) Mike drops his coat on the chair by the door before he leaves.

(C) Mike shows that he doesn't keep his room very clean.

(D) Mike sits still and looks around the room.

READING: ANALYSIS OF LITERATURE
(GRADES 1, 2, 3, 6, AND 8)

WHAT SOME INSTRUCTIONAL CONSIDERATIONS ARE

GRADES 1, 2, 3, 6, AND 8

Instructionally, there are some other skills that ought to be considered. Although not directly tested in BSAP, these skills are related to the overall analysis of literature skill and its related subskills.

1. Understanding fantasy and realism (Grades 1, 2, and 3).

   The student understands the concepts of fantasy and realism. (See the Content Supplement, page 175, for explicit definitions.)

2. Understanding fact and opinion (Grades 6 and 8).

   The student understands the concepts of fact and opinion. (See the Content Supplement, page 175, for explicit definitions.)

3. Understanding structural elements (Grades 1, 2, 3, 6 and 8).

   The student understands the concepts of various structural elements; for example, plot, setting, and theme. (See the Content Supplement, pages 175-176 for explicit definitions.)

4. Determining the nature of descriptions (Grades 1, 2, 3, 6, and 8).

   The student can determine whether a description of a structural element refers to the plot, character, setting, theme, mood, or point of view of a story.

5. Determining the accuracy of descriptions (Grades 1, 2, 3, 6, and 8).

   The student can determine if a description of a structural element is accurate according to the information presented in a selection. If a description is either contradicted or unsupported by information in the story, it is inaccurate.

READING: ANALYSIS OF LITERATURE
(GRADES 1, 2, 3, 6, AND 8)

6. Understanding rhetorical devices (Grades 1, 2, 3, 6, and 8).

   The student understands the concepts of various rhetorical devices; for example, rhyme, simile, and metaphor. (See the Content Supplement, pages 176-177, for explicit definitions.)

7. Determining relationships between structural elements (Grade 8).

   The student can determine whether an event in the plot of a story helps to create a particular mood or to define a particular character.

8. Verifying accuracy of evidence (Grade 8).

   The student can verify whether evidence presented in support of an interpretive statement is accurate. If the evidence is either contradicted or unsupported by information in the story, it is inaccurate. It is also inaccurate if it represents a structural element other than the one requested.

READING: ANALYSIS OF LITERATURE
(GRADES 1, 2, 3, 6, AND 8)

WHAT KINDS OF ACTIVITIES
MIGHT BE DEVELOPED

GRADES 1, 2, 3, 6, AND 8

Although there are clearly some instances in which a particular teaching activity would be appropriate for one grade range yet inappropriate for another, most teachers report that they can often successfully adapt an instructional activity designed for younger or older students.

The activities presented below can, with minor modifications, serve as practice for the overall analysis of literature skill, the subskills tested, and the other related skills offered for instructional consideration.

These activities are intended only as examples to stimulate the teacher's thinking. The activities offer merely possibilities, not prescriptions.

EARLY GRADE POSSIBILITIES

Fantasy Gallery

This activity is intended to help students learn how to distinguish between fantastic and realistic descriptions of actions, events, and characters. It requires students to discuss what characterizes the modes of fantasy and realism as expressed in individual statements.

1. Distribute to the students several stories, each three sentences long. One of the sentences in each story should describe a fantastic action, event, or character.
2. Ask the students to identify the sentence in each story that tells about something make-believe.
3. Discuss how the sentences that tell about something make-believe differ from the sentences that tell about something real.
4. Have students draw or paint pictures to illustrate the make-believe sentences.
5. Display student work under the title "Fantasy Gallery." Each picture should be accompanied by a copy of the sentence it illustrates.

READING: ANALYSIS OF LITERATURE
(GRADES 1, 2, 3, 6, AND 8)

EARLY GRADE POSSIBILITIES (continued)

Make-Believe Or Not?

In this activity students are asked to make up a group story that includes fantasy and realism. Since the activity requires students to generate their own descriptions of fantastic and realistic actions, events, and characters, this activity would be more suitable after students have gained some initial mastery of the two basic concepts.

1. Prepare a set of cards that can be drawn out of a hat. Half the cards should have the word "real" written on them. The other cards should have the word "make-believe" on them.

2. Ask four or five students to be storytellers. They will help write a group story.

3. Each storyteller draws a card out of the hat. If the card says "real," the storyteller is to compose a sentence that describes a realistic action, event, or character. If the card says "make-believe," the storyteller composes a sentence that describes a fantastic action, event, or character.

4. The story is written on the chalkboard as it is composed. Students judge each sentence as it is suggested, to determine whether it fits the real or make-believe category it is supposed to represent.

5. When the story is finished, the class can discuss how the sentences that tell about something make-believe differ from the sentences that tell about something real.

6. The activity can be repeated with a new group of student storytellers making up a different story.

READING: ANALYSIS OF LITERATURE
(GRADES 1, 2, 3, 6, AND 8)

EARLY GRADE POSSIBILITIES (continued)

Story Guide

In this activity, students are asked to develop a "story guide" which, like a TV Guide, provides the basic information about a story: its plot, setting, and characters. "Story Guide" is intended both to sharpen students' understanding of plot, character, and setting, and to give students practice in determining the accuracy of descriptions of these structural elements.

1. Have the class read a story either silently or aloud.
2. Tell students that they are going to develop a guide for this story. This guide will include the following information:
    a. names of the characters in the story
    b. a description of what happens in the story
    c. a statement about what the story shows about its main character
    d. a description of the story's setting
3. Ask the students for suggestions of descriptions to go into the story guide. Write these suggestions on the chalkboard after discussing their accuracy and completeness.
4. When the story guide entries are completed, students can prepare illustrations to accompany them.

EARLY GRADE POSSIBILITIES (continued)

To Tell The Truth

This activity gives specific practice in determining the accuracy of descriptions of structural elements.

1. Prepare a series of descriptions of structural elements based upon a story the class has read. For each element (e.g., plot, setting, and character) write one accurate and several inaccurate descriptions. These inaccurate descriptions should either contradict or be unsupported by information in the story. Mark each accurate description with a star to indicate that it is correct.

2. Select students to serve as panelists. Each panel member receives and reads aloud one of the prepared descriptions after the teacher asks one of the following questions, "What happens in the story?," "Where does the story happen?," or "What does the story show about (name of character)?" Panel members should try to sound as convincing as possible while reading their responses.

3. After the descriptions for a particular structural element have been read aloud, ask the class, "Which person told the truth?" After the class votes, the student who read the accurate description stands up.

4. Discussion can follow explaining why the "imposter" descriptions are inaccurate.

Rhyme Robin

This activity is intended to give students practice in distinguishing pairs of rhymed and unrhymed words. It should also sharpen students' understanding of the concept of rhyme.

1. Distribute a four-line poem with any of the following rhyme schemes: AABB, ABAB, or ABBA.

2. Ask the students to find two pairs of words in the poem that rhyme and two pairs of words that do not rhyme. Then discuss why certain words rhyme and why others don't.

3. In round robin fashion, have students suggest new words to rhyme with the original rhymed pair of words from the poem. Write each new word on the chalkboard.

4. Now have students revise the poem by substituting words from their list for the original pairs of rhymed words in the poem. Students can take turns reading aloud their new versions of the poem.

READING: ANALYSIS OF LITERATURE
(GRADES 1, 2, 3, 6, AND 8)

EARLY GRADE POSSIBILITIES (continued)

As You Like It

This activity is intended to give students practice in understanding the concept of comparison as expressed in similes.

1. Have students read several short poems. Each poem should contain a simile. At least one simile should use the word "like", and one should use the word "as."

2. Discuss each simile by asking the question, "What two things are compared in the poem?"

3. Then divide the class into small groups and give each group a sheet with a list of incomplete similes.

MAKING COMPARISONS WITH SIMILES

AS	LIKE
____ as tiny as ____	Your laugh is like ____
____ as cold as ____	____ like a balloon
____ as soft as ____	The clouds are like ___

4. Each group is to complete the sheet by filling in the blanks with names of subjects that can be compared.

5. One member from each group reads that group's similes aloud to the class.

6. If desired, the class can compose a poem based upon the similes that have been created.

READING: ANALYSIS OF LITERATURE
(GRADES 1, 2, 3, 6, AND 8)

LATER GRADE POSSIBILITIES

Editorial

This activity is intended to help students clarify the distinction between statements that express facts and statements that express opinions.

1. Divide the class into several small groups. Half of the groups are to be "fact seekers," and the other half are to be "opinion hunters."

2. Give each group a copy of an editorial selected from a school, community, or national newspaper.

3. Groups that are "fact seekers" are to read through the editorial and underline in blue each sentence that expresses facts only. Groups that are "opinion hunters" are to underline in red each sentence that contains a statement of opinion.

4. Have the entire class meet together and go through the editorial sentence by sentence. Each group reports its findings for each sentence. Resolve disputes between "fact seekers" and "opinion hunters" through a class discussion.

5. "Fact seekers" and "opinion hunters" can switch roles and repeat this activity with a different editorial.

Match Game

This activity is intended to give students practice in understanding structural elements and determining the nature of descriptions of those elements.

1. Divide the class into two teams. Ask for one student volunteer to act as scorekeeper.

2. Distribute the same short story to each team. Also distribute a "Description List" which contains numbered sentences accurately describing the story's plot, characters, setting, theme, mood, and point of view. Each structural element should be described only once.

3. Give the scorekeeper a set of Match Game cards. The name of a single structural element (e.g., plot) is written on one side of each card. A set of cards contains the names of all of the eligible structural elements.

LATER GRADE POSSIBILITIES (continued)

4. Also provide the scorekeeper with an answer key containing the name of each structural element and the number of the sentence on the description list that corresponds to that structural element.

5. Begin the game by having a player from Team 1 draw one of the Match Game cards. The player reads aloud the name on the card drawn and then indicates which sentence on the description list corresponds to that structural element. The scorekeeper checks the answer key to see if the answer given is correct. If it is, Team 1 scores 1 point, and Team 2 takes its turn. If the answer is incorrect, Team 2 has a chance to respond to the question before taking its regular turn.

6. Teams 1 and 2 alternate taking turns until all the cards have been selected. The team with most points wins.

7. Some of the following variations can be incorporated into the game:

   a. Players can pass on the first card that they select and take a second card. If they cannot answer the second card correctly, a point is deducted from their team's score.

   b. The List of Descriptions can contain both accurate and inaccurate descriptions of the various structural elements.

   c. A game can be based on more than one story.

Poetry Collage

This activity provides students with practice in identifying rhetorical devices in poetry while also sharpening their understandings of the concepts of each rhetorical device.

1. Divide the class into small groups. Assign a different rhetorical device to each group. One group, for example, might be assigned metaphor.

2. Distribute several poems to each group. Make sure a group's poems contain examples of the particular rhetorical device assigned to that group.

3. Ask each group to copy down from the poem the lines which contain examples of their assigned rhetorical device.

READING: ANALYSIS OF LITERATURE
(GRADES 1, 2, 3, 6, AND 8)

LATER GRADE POSSIBILITIES (continued)

4. Groups should next prepare poetry collages to illustrate their rhetorical device. They can find or create pictures that match the rhetorical devices they have located. Pictures and lines of poetry can be arranged on large sheets of construction paper to form a collage.
5. The poetry collages can be shared with the entire class or put on display.
6. As a variation, students can write and illustrate their own lines of poetry to exemplify the rhetorical device their group has been assigned.

Case for the Defense

This activity gives students practice both in identifying evidence from a story which supports a particular interpretive statement and in verifying that such evidence is accurate and of the type requested.

1. Divide the class into three groups. One group will present the evidence for the defense, one group will be the cross-examiners, and the last group will be the jury.
2. Distribute to each group "Exhibit A," a copy of the story under question, and "Exhibit B," an interpretive statement about the mood or a character in the story.
3. The defense must first isolate from the story events which can be deemed evidence in support of the interpretive statement. Next the defense needs to prepare a description of each of these events.
4. The cross-examiners prepare their questions for the defense, making sure that they address the issues of the accuracy of the evidence, the nature of the evidence, and the validity of the evidence.
5. The defense presents its case, and the cross-examiners ask their questions.
6. The jury decides if the defense has accurately described events which support the interpretive statement.

ANALYSIS OF LITERATURE

CONTENT SUPPLEMENT
(GRADES 1, 2, 3, 6, AND 8)

DEFINITION OF TERMS

NATURE OF INFORMATION

Fantasy: (1) descriptions of actions that go beyond or violate a subject's natural capabilities

(2) descriptions of events that involve supernatural transformations

(3) descriptions of mythical or imaginary characters

Realism: (1) descriptions of actions that are consistent with the natural capabilities of a subject

(2) descriptions of events that involve natural transformations

(3) descriptions of characters that exist in the natural world

Fact: A statement which can be verified by observation.

Ex. A movie about ice skating was on television last night.

Opinion: A statement that can be justified by reference to values.

(1) A statement which makes an evaluation. These statements are often characterized by the use of superlatives, qualifiers, or words that express feelings.

Ex. The best movie ever made about ice skating was on television tonight.

(2) A statement which expresses an ethical judgment. These statements often include the words "should" or "ought."

Ex. You should not harm other people.

STRUCTURAL ELEMENTS

Plot: The series of events that make up the story line of a narrative.

Character: The personality traits, features, and abilities of a person who is portrayed in a narrative.

ANALYSIS OF LITERATURE

CONTENT SUPPLEMENT
(GRADES 1, 2, 3, 6, AND 8)

STRUCTURAL ELEMENTS (continued)

Setting: (1) The general location where a narrative takes place.

Ex. "in the park," "at the beach," "in a house"

(2) A detailed description of the environment in which a narrative takes place.

Ex. "in an old house in the forest," "on the front porch of Jimmy's house"

(3) The time when a narrative takes place.

Ex. "in the middle of the afternoon," "late at night"

Theme: The underlying idea expressed by a story; often the meaning behind plot, character, and setting.

Mood: A pervading impression, feeling, or emotion created in a literary selection through structural elements and rhetorical devices.

Ex. "a mood of suspense," "a mood of sadness"

Point of View: The perspective from which a story is narrated.

RHETORICAL DEVICES

Rhyme: The repetition of vowel and consonant sounds at the ends of words.

Ex. baboon, harpoon

Onomatopoeia: The use of words that imitate the sounds they describe.

Ex. buzz, crack, cuckoo

Simile: A figure of speech using the words "like" or "as" to express resemblance between two essentially unlike entities.

Ex. The moon is like a paper lantern.

Metaphor: A figure of speech which equates two essentially unlike entities without using the words "like" or "as." An explicit metaphor uses a form of the linking verb "to be."

Ex. A bird is a live arrow.

ANALYSIS OF LITERATURE

CONTENT SUPPLEMENT
(GRADES 1, 2, 3, 6, AND 8)

RHETORICAL DEVICES (continued)

Personification: The description of non-human entities in human terms. Animals, objects, natural phenomena and ideas may be personified.

Ex. Flowers were dancing on the grass.

Alliteration: The repetition of consonants of two or more neighboring words in a sentence or line of poetry.

Ex. The wailing of the winter wind

MATHEMATICS

MATHEMATICS
(GRADES 1, 2, 3, 6, AND 8)

WHAT IS THE READING LEVEL OF THE TESTS?

GRADES 1, 2, 3, 6, AND 8

In the development of the mathematics tests, reading controls were placed on the items to insure that the test reading level would not interfere with the assessment of mathematic abilities of the South Carolina students.

In general, the criteria for each of the following were minimized.

1. Reading Selection Length: The maximum number of sentences and words in the selection.
2. Number of Paragraphs: The total number of paragrapns in the selection. (Not Applicable)
3. Sentence Length: The maximum number of words in any sentence in the selection.
4. Sentence Structure Complexity: The number of clauses in any sentence in the selection.
5. Vocabulary Difficulty: The difficulty of the vocabulary words used in the test items. Refer to chart below.

	GRADE 1	GRADE 2	GRADE 3	GRADE 6	GRADE 8
VOCABULARY DIFFICULTY	Grade 1 list.* Grade 1 math words. See next page.	Grade 1 list.* Grades 1 and 2 math words. See next page.	Grade 2 list or below.* Grades 1, 2, & 3 math words. See next page.	Grade 5 list or below.* Grades 1, 2,3, & 6 math words. See next page.	Grade 7 list or below.* Grades 1, 2,3,6, & 8 math words. See next page.

*Refer to the publication the South Carolina Word List. South Carolina Department of Education, September, 1980.

MATHEMATICS SUPPLEMENT TO SOUTH CAROLINA WORD LIST

This word list is a supplement to the South Carolina Word List. Therefore, these words should be taught in addition to the words at each grade level in the South Carolina Word List. This list is cumulative in the sense that any words eligible for testing at Grade 1 are also eligible for testing at Grades 2, 3, 6, and 8.

DIRECTIONS TO TEST ITEMS

Grade 1

answer
bubble
darken
problem

CONCEPTS

Grade 1

below
count
digit
number
objects
place
tens
same
word forms of numbers 1-10

Grade 2

least
missing
most
sentence
shaded
true
word forms of numbers 10-398

Grade 3

word forms of numbers 10-999

Grade 6

average
hundredths
tenths
thousandths

MEASUREMENT

Grade 1

between
clock
coin
days of the week
fall
heavy
hot
hour
month
months in a year
spring
summer
tall
temperature
use
warm
weigh
week
winter
worth

Grade 2

centimeter(s)
cold
cup
fifth
first
fourth
heavy
inch(es)
kilogram(s)
o'clock
pounds
second
shown
tells
third
therometer
unit
warm
wide

Grade 3

meter
milliliter
yard

Grade 6

gram
metric ton
volume

Grade 8

approximate

MATHEMATICS SUPPLEMENT TO SOUTH CAROLINA WORD LIST (continued)

GEOMETRY

Grade 1	Grade 2	Grade 3	Grade 6	Grade 8
circle	figure	dotted	area	acute
closed curve	pair	exactly	center	bisector
largest	size	folded	circumference	congruent
mark		right angle	cone	coordinate
open curve			congruent	grid
rectangle			cube	hexagon
same			cylinder	isoceles
shape			diagonal	obtuse
smallest			diameter	octagon
square			equilateral	pentagon
triangle			intersecting	quadrilateral
			intersection	right rectangular
			line segment	scalene
			midpoint	similar
			parallel	solid
			parallelogram	straight
			perimeter	angle
			perpendicular	trapezoid
			polygon	volume
			radius	
			ray	
			rhombus	
			sphere	
			vertex	

PROBLEM SOLVING

Grade 1	Grade 2	Grade 3	Grade 6	Grade 8
altogether		costs	estimate	average
left				

MATHEMATICS: CONCEPTS
(GRADES 1, 2, 3, 6, AND 8)

WHAT SKILLS ARE TESTED
AND WHERE

GRADES 1, 2, 3, 6, AND 8

OBJECTIVE

The student can apply numerical concepts.

EXPLANATION

The Concepts Objective promotes numerical understandings and skills that are precursor abilities for mastery of all of the other mathematics objectives. The objective circumscribes a broad body of content, from counting and determining place value to identifying numerical equivalencies and establishing numerical relationships. Tables and graphs complete the content range, as the ability to interpret pictorial representations of numerical data also requires conceptual skills.

SUBSKILLS TESTED BY GRADE

The following chart contains the list of subskills tested as part of the Concepts Objective. These subskills are not intended to limit the curriculum but to provide information on those aspects of the objective tested in BSAP. The X's indicate at what grades each subskill is tested.

MATHEMATICS: CONCEPTS
(GRADES 1, 2, 3, 6, AND 8)

SUBSKILLS TESTED BY GRADE (continued)

SUBSKILLS TESTED	GRADES TESTED				
	1	2	3	6	8
1. Counting The student can count.	X	X	X		
2. Identifying Equivalencies The student can identify equivalent ways of expressing the same numerical quantity.	X	X	X	X	X
3. Establishing Relationships The student can establish relationships between numerical quantities.	X	X	X	X	X
4. Determining Place Value The student can determine the place value of numerical quantities.	X	X	X	X	X
5. Interpreting Tables and Graphs The student can interpret tables and graphs.		X	X	X	X

MATHEMATICS: CONCEPTS
(GRADES 1, 2, 3, 6, AND 8)

HOW SKILLS ARE TESTED

GRADES 1, 2, 3, 6, AND 8

TEST ITEM OVERVIEW

The test items for this objective consist of displays of objects, geometric figures, charts and graphs, maps, numbers, and mathematical expressions which the student is to use to answer the items about:

1. counting,
2. identifying equivalencies,
3. extablishing relationships,
4. determining place value, and
5. interpreting tables and graphs.

KEYS TO SKILL DIFFICULTY

The difficulty of the test items is varied across grades by changing the key characteristics of the skill.

The following chart summarizes how these variables are tested across grade levels for the skill and its subskills.

MATHEMATICS: CONCEPTS
(GRADES 1, 2, 3, 6, AND 8)

SUMMARY CHART FOR
KEYS TO SKILL DIFFICULTY

KEYS TO SKILL DIFFICULTY	TESTING LIMITS				
	GRADE 1	GRADE 2	GRADE 3	GRADE 6	GRADE 8
COUNTING					
NATURE OF PROBLEM	Counting objects.	Complete a sequence of numbers.	Complete a sequence of numbers.	Not tested.	Not tested.
COUNTING UNITS	10 - 25 objects.	Whole #'s (1 - 100).	Whole #'s (1 - 200).	Not tested.	Not tested.
IDENTIFYING EQUIVALENCIES					
WHOLE NUMBER EQUIVALENTS	Word names of numbers (0 - 10).	Word names of numbers (10 - 398).	Word names of numbers (20 - 999).	Word names of numbers (.001 - 999.9).	Word names of numbers (.001 - 9999.999).
NUMERICAL EQUIVALENTS	Not tested.	Fractions (1/2, 1/3, 1/4, 1/5).	Fractions (Thirds to twelfths)	Decimals, fractions, mixed #'s, %'s.	Decimals, fractions, mixed #'s, %'s, ratios.
ESTABLISHING RELATIONSHIPS					
TYPE OF COMPARISON	One to one correspondence.	Relational (<, >, =).	Relational (<, >, =).	Relational (<, >, =).	Relational (<, >, =).
QUANTITIES COMPARED	Sets of objects.	Whole numbers.	Arithmetic expressions.	Proper fractions.	Proper fractions.
PLACE VALUE					
TYPE OF NOTATION FOR EXPANDED #'s	Words & numbers.	Words & numbers.	Words & numbers; numerals.	Words & numbers; numerals; powers of 10.	Words & numbers; numerals; exponential.
# OF DIGITS	2	2 - 3	3	3 - 4	4 - 5
INTERPRETING TABLES AND GRAPHS					
TYPES OF GRAPHS	Not tested.	Picture or bar.	Picture or bar.	Picture, bar, circle.	Circle or line; tables.
SIZE OF NUMBERS	Not tested.	1 digit whole #'s.	1-2 digit whole #'s.	1-2 digit whole #'s.	1-3 digit whole #'s.
NUMBER OF ENTRIES	Not tested.	3-4 (graphs).	5-6 (graphs).	5-10 (graphs).	6-12 (graphs). 5x5 (tables).
NUMBER OF COMPUTATIONS	Not tested.	0	0	1 (on picture or bar graph).	1 (on line or circle graph).

MATHEMATICS: CONCEPTS
(GRADE 1)

HOW SKILLS ARE TESTED

GRADE 1

OBJECTIVE

The student can apply numerical concepts.

SUBSKILLS TESTED AT GRADE 1

There is an "X" in the box next to each subskill tested at Grade 1.

☒ 1. Counting

The student can count.

☒ 2. Identifying Equivalencies

The student can identify equivalent ways of expressing the same numerical quantity.

☒ 3. Establishing Relationships

The student can establish relationships between numerical quantities.

☒ 4. Determining Place Value

The student can determine the place value of numerical quantities.

☐ 5. Interpreting Tables and Graphs

The student can interpret tables and graphs.

MATHEMATICS: CONCEPTS
(GRADE 1)

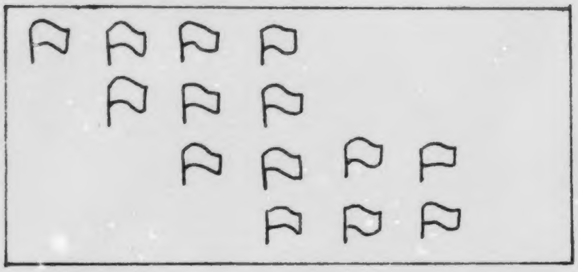
SAMPLE TEST ITEMS AND DIRECTIONS

The following test items are samples of the types administered in BSAP.

Subskill Tested: Counting

(Teacher reads aloud)

Count the flags.



Find the number of flags.

(Teacher does not read answer choices.)

14	15	18
●	○	○
(correct)		

Subskill Tested: Identifying Equivalencies

(Teacher reads aloud)

Read the word in the box.
Find the number that goes with the word.

(Student reads silently)

FIVE

4	5	6
○	●	○
	(correct)	

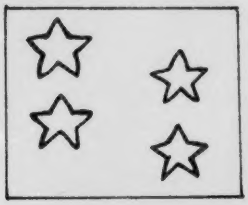
(Teacher does not read answer choices.)

MATHEMATICS: CONCEPTS
(GRADE 1)

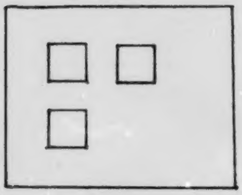
SAMPLE TEST ITEMS AND DIRECTIONS (continued)

Subskill Tested: Establishing Relationships

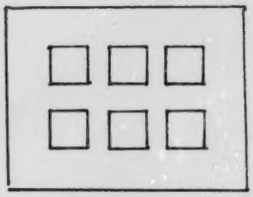
(Teacher reads aloud) Look at the stars in the box.



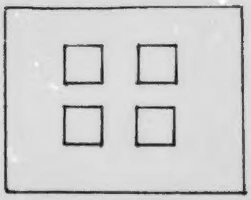
Find the box with the same number of objects.



○



○



● (correct)

Subskill Tested: Determining Place Value

(Teacher reads aloud) Look at the number in the box.

Find the digit in the tens place.

(Student reads silently)

23	2	3	5
	● (correct)	○	○

(Teacher does not read answer choices.)

MATHEMATICS: CONCEPTS
(GRADE 2)

HOW SKILLS ARE TESTED
GRADE 2

OBJECTIVE

The student can apply numerical concepts.

SUBSKILLS TESTED AT GRADE 2

There is an "X" in the box next to each subskill tested at Grade 2.

☒ 1. Counting

The student can count.

☒ 2. Identifying Equivalencies

The student can identify equivalent ways of expressing the same numerical quantity.

☒ 3. Establishing Relationships

The student can establish relationships between numerical quantities.

☒ 4. Determining Place Value

The student can determine the place value of numerical quantities.

☒ 5. Interpreting Tables and Graphs

The student can interpret tables and graphs.

MATHEMATICS: CONCEPTS
(GRADE 2)

SAMPLE TEST ITEMS AND DIRECTIONS

The following test items are samples of the types administered in BSAP.

Subskill Tested: Counting

(Teacher says) Look at the numbers in the box.

(Teacher reads aloud)

What is the missing number?

(Student reads silently)

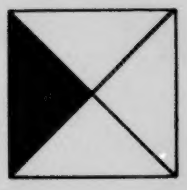
10, 12, 14, ? , 18	16	17	20
	●	○	○
	(correct)		

(Teacher does not read answer choices.)

Subskill Tested: Identifying Equivalencies

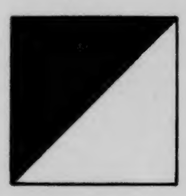
(Teacher says) Look at the squares.

(Teacher reads aloud)
Find the square with $\frac{1}{4}$ shaded.

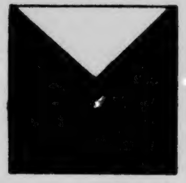


●

(correct)



○



○

MATHEMATICS: CONCEPTS
(GRADE 2)

SAMPLE TEST ITEMS AND DIRECTIONS (continued)

Subskill Tested: Establishing Relationships

(Teacher says) Look at the number sentences.

(Teacher reads aloud)

Find the sentence that is true.

$2 < 2$	$2 = 2$	$2 > 2$
○	●	○
	(correct)	

(Teacher does not read answer choices.)

Subskill Tested: Determining Place Value

(Teacher reads aloud)

Read the number in the box.
Find the number that means
the same.

(Student reads silently)

2 hundreds 1 ten 0 ones	21	201	210
	○	○	●
			(correct)

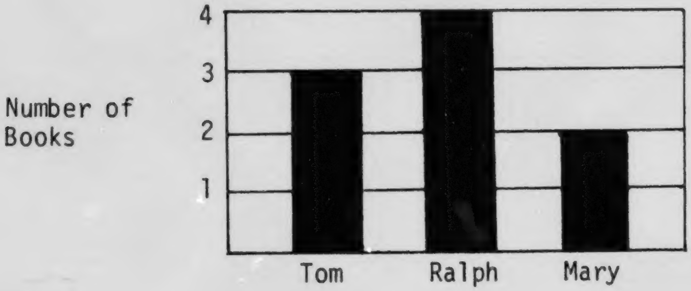
(Teacher does not read answer choices.)

MATHEMATICS: CONCEPTS
(GRADE 2)

SAMPLE TEST ITEMS AND DIRECTIONS (continued)

Subskill Tested: Interpreting Tables and Graphs

(Teacher says) Look at the graph.



(Teacher reads aloud)

Find the child who has the most books.

Ralph	Mary	Tom
● (correct)	○	○

(Teacher does not read answer choices.)

MATHEMATICS: CONCEPTS
(GRADE 3)

HOW SKILLS ARE TESTED

GRADE 3

OBJECTIVE

The student can apply numerical concepts.

SUBSKILLS TESTED AT GRADE 3

There is an "X" in the box next to each subskill tested at Grade 3.

☒ 1. Counting

The student can count.

☒ 2. Identifying Equivalencies

The student can identify equivalent ways of expressing the same numerical quantity.

☒ 3. Establishing Relationships

The student can establish relationships between numerical quantities.

☒ 4. Determining Place Value

The student can determine the place value of numerical quantities.

☒ 5. Interpreting Tables and Graphs

The student can interpret tables and graphs.

MATHEMATICS: CONCEPTS
(GRADE 3)

SAMPLE TEST ITEMS AND DIRECTIONS

The following test items are samples of the types administered in BSAP.

Subskill Tested: Counting

(Teacher says) Look at the numbers in the box.

(Teacher reads aloud)
What is the missing number?

(Student reads silently)

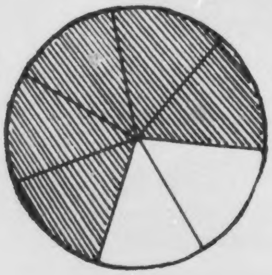
18, ?, 14, 12, 10	16	17	20
	● (correct)	○	○

(Teacher does not read answer choices.)

Subskill Tested: Identifying Equivalencies

(Teacher says) Look at the circle.

(Teacher reads aloud)
What part is shaded?



$\frac{5}{7}$	$\frac{2}{7}$	$\frac{2}{5}$
● (correct)	○	○

(Teacher does not read answer choices.)

MATHEMATICS: CONCEPTS
(GRADE 3)

SAMPLE TEST ITEMS AND DIRECTIONS (continued)

Subskill Tested: Establishing Relationships

(Teacher says) Look at the number sentences.

(Teacher reads aloud)
Which sentence is true?

○ $5 - 3 < 2$

○ $5 - 3 > 2$

● $5 - 3 = 2$ (correct)

(Teacher does not read answer choices.)

Subskill Tested: Determining Place Value

(Teacher says) Look at the number in the box.

(Teacher reads aloud)
What number is the same as the number in the box?

(Student reads silently)

3 hundreds + 0 tens + 5 ones	8	35	305
	○	○	● (correct)

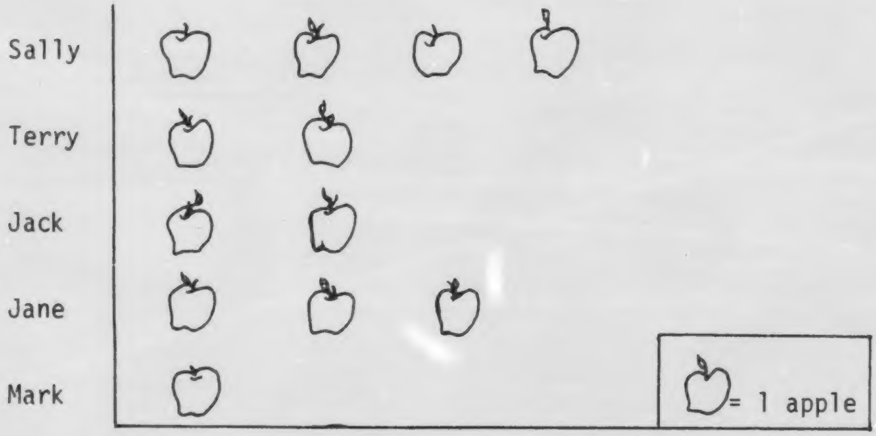
(Teacher does not read answer choices.)

MATHEMATICS: CONCEPTS
(GRADE 3)

SAMPLE TEST ITEMS AND DIRECTIONS (continued)

Subskill tested: Interpreting Tables and Graphs

(Teacher says) Look at the graph.



(Teacher reads aloud)

Who has the most apples?

Sally	Jack	Jane
●	○	○
(correct)		

(Teacher does not read answer choices.)

MATHEMATICS: CONCEPTS
(GRADE 6)

HOW SKILLS ARE TESTED

GRADE 6

OBJECTIVE

The student can apply numerical concepts.

SUBSKILLS TESTED AT GRADE 6

There is an "X" in the box next to each subskill tested at Grade 6.

☐ 1. Counting

The student can count.

☒ 2. Identifying Equivalencies

The student can identify equivalent ways of expressing the same numerical quantity.

☒ 3. Establishing Relationships

The student can establish relationships between numerical quantities.

☒ 4. Determining Place Value

The student can determine the place value of numerical quantities.

☒ 5. Interpreting Tables and Graphs

The student can interpret tables and graphs.

MATHEMATICS: CONCEPTS
(GRADE 6)

SAMPLE TEST ITEMS AND DIRECTIONS

The following test items are samples of the types administered in BSAP.

Directions for All Items:
(Student reads)

1. Solve the following problems.
2. Reduce all fractions to lowest terms.
3. Mark the letter of the correct answer on your answer sheet.

Subskill Tested: Identifying Equivalencies

What number completes the equation?

$$13\% = \underline{\quad ? \quad}$$

(A) $\frac{13}{100}$ (correct)   (B) $\frac{13}{1000}$ (C) 13   (D) 1.3

Subskill Tested: Establishing Relationships

Which number sentence is true?

(A) $\frac{7}{9} > \frac{2}{3}$ (correct)   (B) $\frac{1}{2} > \frac{4}{7}$ (C) $\frac{2}{5} > \frac{3}{5}$ (D) $\frac{1}{4} > \frac{1}{3}$

MATHEMATICS: CONCEPTS
(GRADE 6)

SAMPLE TEST ITEMS AND DIRECTIONS (continued)

Subskill Tested: Determining Place Value

What number is the same as the number in the box?

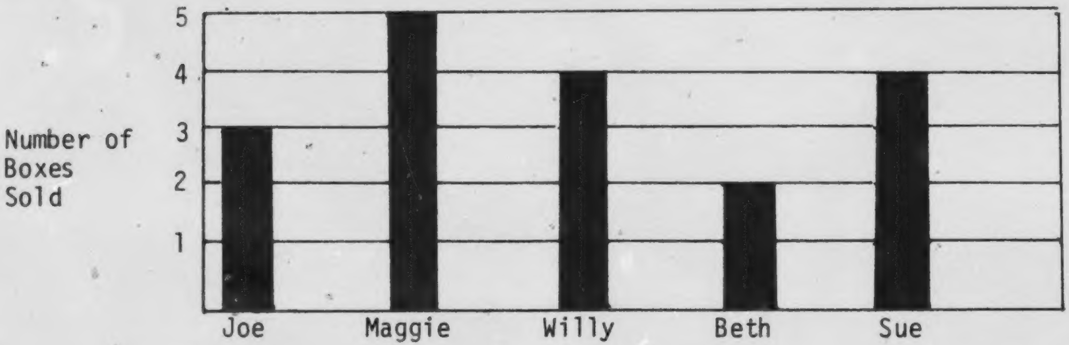
7 tens 4 ones and 3 hundredths

(A) 74.03 (correct) (B) 74.3 (C) 374 (D) 743

Subskill Tested: Interpreting Tables and Graphs

STUDENT PEN SALES

1 box = 12 pencils



How many pencils did Willy sell?

(A) 4 (B) 5 (C) 48 (correct) (D) 60

MATHEMATICS: CONCEPTS
(GRADE 8)

HOW SKILLS ARE TESTED
GRADE 8

OBJECTIVE

The student can apply numerical concepts.

SUBSKILLS TESTED AT GRADE 8

There is an "X" in the box next to each subskill tested at Grade 8.

☐ 1. Counting

The student can count.

☒ 2. Identifying Equivalencies

The student can identify equivalent ways of expressing the same numerical quantity.

☒ 3. Establishing Relationships

The student can establish relationships between numerical quantities.

☒ 4. Determining Place Value

The student can determine the place value of numerical quantities.

☒ 5. Interpreting Tables and Graphs

The student can interpret tables and graphs.

MATHEMATICS: CONCEPTS
(GRADE 8)

SAMPLE TEST ITEMS AND DIRECTIONS

The following test items are samples of the types administered in BSAP.

Directions for All Items:
(Student reads)

1. Solve the following problems.
2. Reduce all fractions to lowest terms.
3. Mark the letter of the correct answer on your answer sheet.

Subskill Tested: Identifying Equivalencies

What number completes the equation?

$$\frac{9}{12} = \frac{?}{16}$$

(A) 9 (B) 12 (correct) (C) 10 (D) 8

Subskill Tested: Establishing Relationships

What fraction makes this sentence true?

$$\underline{\quad ? \quad} < \frac{17}{45}$$

(A) $\frac{1}{3}$ (correct) (B) $\frac{2}{3}$ (C) $\frac{2}{5}$ (D) $\frac{4}{9}$

MATHEMATICS: CONCEPTS
(GRADE 8)

SAMPLE TEST ITEMS AND DIRECTIONS (continued)

Subskill Tested: Determining Place Value

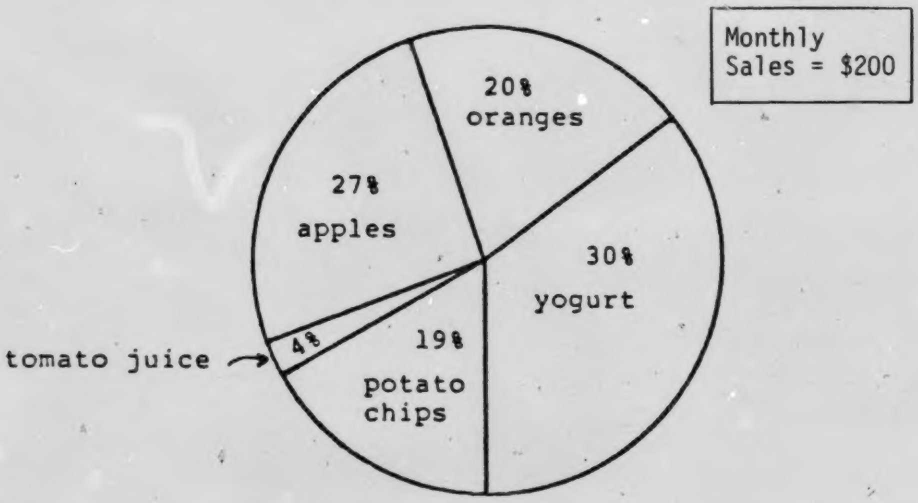
What number is the same as the number in the box?

4 ones 7 tens 6 hundredths
9 thousandths

(A) 7.469
(B) 47.96
(C) 74.069 (correct)
(D) 9674

Subskill Tested: Interpreting Tables and Graphs

SOURCES OF VENDING MACHINE INCOME



How much money is made on tomato juice each month?

(A) $.40
(B) $.50
(C) $4.00
(D) $8.00 (correct)

MATHEMATICS: CONCEPTS
(GRADES 1, 2, 3, 6, AND 8)

WHAT SOME INSTRUCTIONAL CONSIDERATIONS ARE

(GRADES 1, 2, 3, 6, AND 8)

Instructionally, there are some other skills that ought to be considered. Although not directly tested in BSAP, these skills are related to the overall concepts skill and its related subskills.

The following skills represent abilities which underlie one or more of the content areas students must master in order to be proficient in applying numerical concepts.

1. Comprehension of numerical representations (Grades 1, 2, 3, 6, and 8 as applicable).

   The student can interpret the numerical representations for whole numbers, fractions, decimals, and percents. For example, given the numerical representation "$\frac{2}{3}$", the student associates that symbol with the concept "two-thirds."

2. Comprehension of mathematical terminology (Grades 1, 2, 3, 6, and 8 as applicable).

   The student understands the following types of mathematical vocabulary: (1) the word forms for whole numbers, fractions, and decimals, (2) names referring to place value (e.g., "hundredths place"); (3) relationship words (e.g., "most," "least"); (5) sequence words (e.g., "before," "next") and (6) phrases requiring the determination of a quantity (e.g., "how much," "how many," "what part").

3. Comprehension of mathematical symbols (Grades 1, 2, 3, 6, and 8 as applicable.)

   The student understands the following types of symbols: (1) operational signs (i.e., +, -, x and ÷); (2) relations symbols (i.e., =, < and >); and (3) symbols used in conjunction with numbers (i.e., decimal point, percentage sign, exponent).

MATHEMATICS: CONCEPTS
(GRADES 1, 2, 3, 6, AND 8)

WHAT SOME INSTRUCTIONAL CONSIDERATIONS ARE (continued)

4. Comprehension of numerical sequence (Grades 2, 3, 6, and 8)

   The student understands that numbers can be: (1) arranged in ascending or descending order, (2) grouped by multiples, and (3) counted forwards or backwards.

5. Comprehension of graphic representations (Grades 2, 3, 6, and 8)

   The student understands that numerical quantities and data relationships can be represented either visually, (i.e., in picture, circle, and bar graphs) or through a coordinate system of rows and columns (i.e., in tables).

MATHEMATICS: CONCEPTS
(GRADES 1, 2, 3, 6, AND 8)

WHAT ACTIVITIES MIGHT BE DEVELOPED
GRADES 1, 2, 3, 6, AND 8

Although there are clearly some instances in which a particular teaching activity would be appropriate for one grade range yet inappropriate for another, most teachers report that they can often successfully adapt an instructional activity designed for younger or older students.

The activities presented below can, with minor modifications, serve as practice for the overall concepts skill, the subskills tested, and the other related skills offered for instructional consideration.

These activities are intended only as examples to stimulate the teacher's thinking. The activities offer merely possibilities, not prescriptions.

EARLY GRADE POSSIBILITIES

Counting Time

The activities that follow are grouped together because they all provide practice in the skills associated with counting and establishing number sequences.

1. Distribute blank sheets of paper. Write a numeral on the chalkboard. Ask students to copy the numeral on their papers and then draw a set of objects equal in number. Let students exchange their papers and check each other's work.

2. Have students complete exercises such as the following, either at the chalkboard or on duplicated practice sheets.

ONE LESS	SET	ONE MORE
	□ □ □	
	△ △	
	○ ○ ○ ○ ○	

After students have completed such a chart, have them print the numeral that corresponds to each group of objects next to that group.

MATHEMATICS: CONCEPTS
(GRADES 1, 2, 3, 6, AND 8)

EARLY GRADE POSSIBILITIES (continued)

3. Have students arrange objects according to your oral directions. For example, "Put an eraser first, a pencil second, a crayon third, and a ruler fourth." After the objects are placed in order, ask students to hold up a particular object; for example, "hold up the third thing." Students can take turns giving the directions to the class.

4. Assign each child a counting number. When it is time to have the class line up (for recess or dismissal, for example), or to divide into groups (for a game, for example), students arrange themselves according to your directions. Base these directions on the assigned numbers. Students might line up in order from the smallest to the largest number or vice versa. Students might split into two groups according to even and odd numbers. Or students might form several groups by "counting off" using different multiples.

5. Prepare slips of paper based on a sequence of numbers. Each slip should have a different number on it. Write the word "least" at one end of the chalkboard and the word "greatest" at the other end. Students are to pick a slip of paper and position themselves in front of the board, according to the number they drew. The first student stands where he or she thinks appropriate. Subsequent students arrange themselves around this student to form a line with their numbers in the sequential order shown on the board. At first this activity might be conducted with a simple sequence of numbers (counting by ones, for example). As students become more proficient at ordering themselves, more complex sequences might be employed.

Block Busters

Manipulating concrete objects allows students to participate actively in the creation of numerical equalities and inequalities while also reinforcing students' understanding of mathematical symbols and terminology.

1. Provide each student with a set of 10-20 similar objects (blocks, cardboard counters, cut-out drawings, etc.). Also have each student prepare cards with a single mathematical symbol printed on each one. These symbols might include: +, -, =, < and >.

2. Students can write on the chalkboard the mathematical expression that corresponds to each arrangement they devised, then compare the expressions that resulted.

EARLY GRADE POSSIBILITIES (continued)

How Many Ways?

By varying the content used, the following activity can be employed at different grade levels to promote students' skill with identifying numerical equivalencies.

1. Call out a single number (for example 20). Students are to write down as many equivalents for that number as they can think of (for example 10 + 10, 30 - 10, 20 + 0, etc.). Then they take turns suggesting their equivalents, seeing how long of a list the class can develop.

2. As a variation, call out a number (for example 225) and have students write down as many different ways of writing that number as they can think of. (For example, 200 + 20 + 5; 225 ones; 22 tens + 5 ones; two hundreds + twenty-five ones; two hundreds + two tens + five ones.)

Parts of the Whole

These activities are designed to help students develop skill in conceptualizing fractions.

1. Give students sets of objects (for example, a set of 12 beans) and then ask them to divide the set into equal-sized smaller sets (for example, two sets of six objects, three sets of four objects, etc.). Provide or have students supply the appropriate fractional name to label each division of objects (for example, halves, thirds, fourths, etc.) Direct students to form various configurations with their objects (for example, placing one-third of the objects under a piece of paper and leaving two-thirds of the objects uncovered, etc.).

2. Write a group of proper fractions on the chalkboard. The denominators of these fractions should range between 2 and 12. Ask students to prepare drawings to illustrate each fraction. Display students' work to demonstrate the various ways each fraction can be represented.

MATHEMATICS: CONCEPTS
(GRADES 1, 2, 3, 6, AND 8)

EARLY GRADE POSSIBILITIES (continued)

People-Graphs

In this activity students participate in the formation as well as interpretation of graphs.

1. Mark a chalkline at one side of an open area. The chalkline should be evenly divided and labeled with headings based on an attribute common to all students. This attribute might be month of birth, hair color, number of sisters and brothers, etc. The headings may be chalked on the floor or printed on signs.

2. Ask students to line up behind the appropriate labels, thus forming a living graph.

3. Call on individual students to answer questions about information presented in the living graph. (For example, "What color eyes do the greatest number of children have?")

4. Students can suggest their own ideas for attributes to graph. After a living graph has been formed, students may transfer the information gathered to a bar or picture graph they prepare themselves.

Show Me

Many different numerical concepts can be reviewed through this activity.

1. Write a single number on the chalkboard. Use either its numerical or its word form.

2. Direct students to find a concrete way to represent what has been written. They might, for example, collect five objects to exemplify the word "five," or fold a paper in thirds and then cut off one piece to demonstrate the number "$\frac{2}{3}$."

3. Compare and discuss the various representations that students present.

MATHEMATICS: CONCEPTS
(GRADES 1, 2, 3, 6, AND 8)

LATER GRADE POSSIBILITIES

Another Way

Students practice using mathematical symbols and terminology when participating in this activity.

1. Write a verbal sentence on the board and ask students to substitute as many mathematical symbols as they can for the words used.

   EXAMPLE: Nine hundred nine and nine hundredths is less than ten times one hundred.

   TRANSLATION: $909.09 < 10 \times 100$

2. Practice the activity in reverse by writing a mathematical sentence on the board and asking students to translate it into words.

3. Have students take turns making up verbal and mathematical sentences to present to the rest of the class for translation. A class collection of "super sentences" might be developed, based on sentences that have proved particularly challenging.

What's My Number

This activity requires logical thinking as well as knowledge of numerical equivalents and relationships.

1. Select a student to play the role of a number. Introduce this student to the rest of the class in a manner that gives a clue as to the student's number identity. For example, "Mr. X is a whole number between 2 and 15" or "Ms. Y is an improper fraction between 2 and 7."

2. The other students take turns asking questions of the mystery number. Only questions answerable by "yes" or "no" are allowed.

3. Any student who wishes to do so may try to guess the number's identity. If the student is correct, he or she becomes the next mystery number. Incorrect guessers are out of the game until the next round of play.

4. The game can be made more difficult by eliminating any clues as to the number's identity when introducing the mystery number and by broadening the range of numbers eligible for play.

LATER GRADE POSSIBILITIES (continued)

Number Call Out

Students' familiarity with number equivalents is strengthened by this game.

1. Prepare sets of blank bingo cards (i.e., cards divided into 25 squares). Also prepare lists of 40-50 decimal numbers, fractions, mixed numbers, percentages, or ratios.
2. Decide which list of numbers to use for a series of games. Distribute the list to students along with one or more blank game cards for each player.
3. Allow students time to fill in their bingo cards. Students must write a different number in each square. All numbers must be equivalents for numbers contained on the list which was passed out previously. For example, if the list contained the decimal fraction .25, students could enter 25% or $\frac{1}{4}$ or 1:4 on their card.
4. Play begins when numbers are selected at random from the number list and then called out to the class. Students use markers to cover each number on their card that is an equivalent for a number called.
5. Potential winners must have their cards checked to verify that the equivalencies identified were correct ones.

Questions and Answers

This activity provides a lesson in survey methods as well as the preparation of tables and graphs.

1. Have the class decide on an interesting survey question to ask people. A question with several possible answers should be selected. (For example, "What is your favorite food?")
2. Each student is to ask the question of several people out of class and record the answers received.
3. After tabulating the data collected, the class should discuss the ways in which that information can be presented.
4. Working alone or in groups, students prepare all the various types of tables and/or graphs that can be made based on the survey results. (For instance, there might be a circle graph, a bar graph, and a table.)
5. When all the representations are completed, discuss the advantages and disadvantages of each form, noting whether any one is a more effective means of presentation than the others.

MATHEMATICS: OPERATIONS
(GRADES 1, 2, 3, 6, AND 8)

WHAT SKILLS ARE TESTED
AND WHERE

GRADES 1, 2, 3, 6, AND 8

OBJECTIVE

The student can compute accurately.

EXPLANATION

Students' ability to perform the operations of addition, subtraction, multiplication, and division with various types of numbers represents a skill essential to all of the mathematics objectives. This skill requires mastery of the basic arithmetic facts as well as familiarity with the operational algorithms for whole numbers, decimals, fractions, and percents.

SUBSKILLS TESTED BY GRADE

The following chart contains the list of subskills tested as part of the Operations Objective. These subskills are not intended to limit the curriculum but to provide information on those aspects of the objective tested in BSAP. The X's indicate at what grades each subskill is tested.

SUBSKILLS TESTED	GRADES TESTED				
	1	2	3	6	8
1. Addition The student can add accurately.	X	X	X	X	X
2. Subtraction The student can subtract accurately.	X	X	X	X	X
3. Multiplication The student can multiply accurately.			X	X	X
4. Division The student can divide accurately.			X	X	X

MATHEMATICS: OPERATIONS
(GRADES 1, 2, 3, 6, AND 8)

HOW SKILLS ARE TESTED

GRADES 1, 2, 3, 6, AND 8

TEST ITEM OVERVIEW

The test items for this objective consist of nonverbal mathematical problems in which the student is to perform the indicated operations of:

1. addition,
2. subtraction,
3. multiplication, and
4. division.

KEYS TO SKILL DIFFICULTY

The difficulty of the test items is varied across grade by changing the key characteristics of the skill.

The following chart summarizes how these variables are tested across grade levels for the skill and its subskills.

MATHEMATICS: OPERATIONS
(GRADES 1, 2, 3, 6, AND 8)

SUMMARY CHART FOR KEYS TO SKILL DIFFICULTY
ADDITION AND SUBTRACTION

SKILLS KEYS TO SKILL DIFFICULTY	TESTING LIMITS				
	GRADE 1	GRADE 2	GRADE 3	GRADE 6	GRADE 8
ADDITION AND SUBTRACTION					
TYPES OF NUMBERS (type, max. number of digits)	Whole numbers, 2 digits.	Whole numbers, 3 digits.	Whole numbers, 3 digits. Fractions, 1 digit per numerator/ denominator.	Fractions, 2 digits per numerator/ denominator. Decimals, 3 digits. Mixed nos., 1 digit per numerator/ denominator.	Signed integers, 2 digits. Fractions, 2 digits per numerator/ denominator. Decimals, 4 digits. Mixed nos., 2 digits per numerator/ denominator.
FORMAT	Vertical.	Horizontal or Vertical.	Horizontal or Vertical.	Horizontal or Vertical.	Horizontal or Vertical.
REDUCING REQUIRED?	Not tested.	Not tested.	No	Yes	Yes
FINDING COMMON DENOMINATOR REQUIRED?	Not tested.	Not tested.	No	No	Yes
ADDITION					
MAXIMUM NUMBER OF ADDENDS	3	4	5 (whole nos. only).	4	4
MAXIMUM NUMBER OF REGROUPINGS	0	1	2	3	4
SUBTRACTION					
MAXIMUM NUMBER OF REGROUPINGS	0	1	2	2	4

MATHEMATICS: OPERATIONS
(GRADES 1, 2, 3, 6, AND 8)

SUMMARY CHART FOR KEYS TO SKILL DIFFICULTY MULTIPLICATION AND DIVISION

SKILLS KEYS TO SKILL DIFFICULTY	TESTING LIMITS				
	GRADE 1	GRADE 2	GRADE 3	GRADE 6	GRADE 8
MULTIPLICATION AND DIVISION					
TYPES OF NUMBERS (type, max. number of digits)	Not tested.	Not tested.	Whole numbers, 3 digits.	Whole numbers, 3 digits. Decimals, 3 digits. Fractions, 2 digits per numerator/ denominator. Mixed nos., 2 digits per numerator/ denominator.	Whole numbers, 2 digits. Decimals, 3 digits. Fractions, 2 digits per numerator/ denominator. Mixed nos., 2 digits per numerator/ denominator.
MULTIPLICATION					
MAXIMUM NUMBER OF FACTORS	Not tested.	Not tested.	2	3 (whole nos. only).	3 (mixed nos./ fractions only).
FORMAT	Not tested.	Not tested.	Horizontal or Vertical.	Horizontal or Vertical.	Horizontal or Vertical.
REDUCING REQUIRED?	Not tested.	Not tested.	No	Yes	Yes
DIVISION					
REMAINDER?	Not tested.	Not tested.	Yes	Yes	Yes, as fraction
FORMAT	Not tested	Not tested.	Vertical.	Use of both signs: ÷, $\sqrt{}$	Use of both signs: ÷, $\sqrt{}$
REDUCING REQUIRED?	Not tested.	Not tested.	Not tested.	Yes	Yes

MATHEMATICS: OPERATIONS
(GRADE 1)

HOW SKILLS ARE TESTED

GRADE 1

OBJECTIVE

The student can compute accurately.

SUBSKILLS TESTED AT GRADE 1

There is an "X" in the box next to each subskill tested at Grade 1.

☒ 1. Addition

The student can add accurately.

☒ 2. Subtraction

The student can subtract accurately.

☐ 3. Multiplication

The student can multiply accurately.

☐ 4. Division

The student can divide accurately.

MATHEMATICS: OPERATIONS
(GRADE 1)

SAMPLE TEST ITEMS AND DIRECTIONS

The following test items are samples of the types administered in BSAP.

Subskill Tested: Addition

(Teacher says) Work the problem.

$4 + 2 = \underline{\quad\quad}$

2	6	7
○	●	○
	(correct)	

Subskill Tested: Subtraction

(Teacher says) Work the problem.

$$\begin{array}{r} 9 \\ -\ 3 \\ \hline \end{array}$$

6	7	12
●	○	○
(correct)		

MATHEMATICS: OPERATIONS
(GRADE 2)

HOW SKILLS ARE TESTED

GRADE 2

OBJECTIVE

The student can compute accurately.

SUBSKILLS TESTED AT GRADE 2

There is an "X" in the box next to each subskill tested at Grade 2.

☒ 1. Addition

The student can add accurately.

☒ 2. Subtraction

The student can subtract accurately.

☐ 3. Multiplication

The student can multiply accurately.

☐ 4. Division

The student can divide accurately.

MATHEMATICS: OPERATIONS
(GRADE 2)

SAMPLE TEST ITEMS AND DIRECTIONS

The following test items are samples of the types administered in BSAP.

Subskill Tested: Addition

(Teacher says) Work the problem.

4 + 18 = ____

12	14	22
○	○	●
		(correct)

Subskill Tested: Subtraction

(Teacher says) Work the problem.

$$\begin{array}{r} 33 \\ -\underline{17} \end{array}$$

16	24	26
●	○	○
(correct)		

MATHEMATICS: OPERATIONS
(GRADE 3)

HOW SKILLS ARE TESTED

GRADE 3

OBJECTIVE

The student can compute accurately.

SUBSKILLS TESTED AT GRADE 3

There is an "X" in the box next to each subskill tested at Grade 3.

☒ 1. Addition

The student can add accurately.

☒ 2. Subtraction

The student can subtract accurately.

☒ 3. Multiplication

The student can multiply accurately.

☒ 4. Division

The student can divide accurately.

MATHEMATICS: OPERATIONS
(GRADE 3)

SAMPLE TEST ITEMS AND DIRECTIONS

The following test items are samples of the types administered in BSAP.

Subskill Tested: Addition

(Teacher says) Work the problem.

624 + 25 = ____	649	659	874
	●	○	○
	(correct)		

Subskill Tested: Subtraction

(Teacher says) Work the problem.

624 - 25 = ____	589	599	601
	○	●	○
		(correct)	

Subskill Tested: Multiplication

(Teacher says) Work the problem.

$$\begin{array}{r} 307 \\ \times \underline{3} \end{array}$$

901	921	951
○	●	○
	(correct)	

Subskill Tested: Division

(Teacher says) Work the problem.

$$4\,\overline{)\,36}$$

8	9	10
○	●	○
	(correct)	

MATHEMATICS: OPERATIONS
(GRADE 6)

HOW SKILLS ARE TESTED

GRADE 6

OBJECTIVE

The student can compute accurately.

SUBSKILLS TESTED AT GRADE 6

There is an "X" in the box next to each subskill tested at Grade 6.

☒ 1. Addition

The student can add accurately.

☒ 2. Subtraction

The student can subtract accurately.

☒ 3. Multiplication

The student can multiply accurately.

☒ 4. Division

The student can divide accurately.

MATHEMATICS: OPERATIONS
(GRADE 6)

SAMPLE TEST ITEMS AND DIRECTIONS

The following test items are samples of the types administered in BSAP.

Directions for All Items:

(Student reads)

1. Solve the following problems.
2. Reduce all fractions to lowest terms.
3. Mark the letter of the correct answer on your answer sheet.

Subskill Tested: Addition

$\frac{2}{9} + 3\frac{1}{9} + 7\frac{3}{9} =$

(A) $10\frac{5}{27}$

(B) $10\frac{5}{9}$

(C) $10\frac{2}{3}$ (correct)

(D) $11\frac{7}{9}$

Subskill Tested: Subtraction

8.02 - .69 =

(A) 7.33 (correct)

(B) 7.43

(C) 8.67

(D) 8.71

MATHEMATICS: OPERATIONS
(GRADE 6)

SAMPLE TEST ITEMS AND DIRECTIONS (continued)

Subskill Tested: Multiplication

$2\frac{1}{3} \times 4\frac{1}{2} =$

(A) $6\frac{5}{6}$

(B) $8\frac{1}{6}$

(C) $8\frac{2}{5}$

(D) $10\frac{1}{2}$ (correct)

Subskill Tested: Division

$1\frac{4}{5} \div 2 =$

(A) $\frac{1}{2}$

(B) $\frac{9}{10}$ (correct)

(C) $1\frac{1}{9}$

(D) $1\frac{2}{5}$

MATHEMATICS: OPERATIONS
(GRADE 8)

HOW SKILLS ARE TESTED

GRADE 8

OBJECTIVE

The student can compute accurately.

SUBSKILLS TESTED AT GRADE 8

There is an "X" in the box next to each subskill tested at Grade 8.

☒ 1. Addition

The student can add accurately.

☒ 2. Subtraction

The student can subtract accurately.

☒ 3. Multiplication

The student can multiply accurately.

☒ 4. Division

The student can divide accurately.

MATHEMATICS: OPERATIONS
(GRADE 8)

SAMPLE TEST ITEMS AND DIRECTIONS

The following test items are samples of the types administered in BSAP.

Directions for All Items:

(Student reads)

1. Solve the following problems.
2. Reduce all fractions to lowest terms.
3. Mark the letter of the correct answer on your answer sheet.

Subskill Tested: Addition

$$\begin{array}{r} 6\frac{2}{10} \\ +\ 1\frac{3}{5} \\ \hline \end{array}$$

(A) $7\frac{1}{2}$

(B) $7\frac{1}{3}$

(C) $7\frac{4}{5}$ (correct)

(D) 8

Subskill Tested: Subtraction

372.1 - 8.75 =

(A) 284.6

(B) 363.35 (correct)

(C) 363.45

(D) 384.85

MATHEMATICS: OPERATIONS
(GRADE 8)

SAMPLE TEST ITEMS AND DIRECTIONS (continued)

Subskill Tested: Multiplication

30% of 2.4 =

(A) .72 (correct)
(B) .8
(C) 1.5
(D) 8

Subskill Tested: Division

5 is what percent of 20?

(A) 4%
(B) 20%
(C) 25% (correct)
(D) 40%

MATHEMATICS: OPERATIONS
(GRADES 1, 2, 3, 6, AND 8)

WHAT SOME INSTRUCTIONAL CONSIDERATIONS ARE

GRADES 1, 2, 3, 6, AND 8

Instructionally, there are some other skills that ought to be considered. Although not directly tested in BSAP, these skills are related to the overall operations skill and its related subskills. The skills presented below have been isolated in an attempt to focus on those abilities which are required by one or more of the four operations and/or one or more of the types of numbers eligible for testing.

1. Knowledge of basic number facts (Grades 1, 2, 3, 6, and 8, as applicable).

   The student can add, subtract, multiply, and divide all possible pairs of one-digit numbers.

2. Comprehension of place value (Grades 1, 2, 3, 6, and 8).

   The student can apply place value concepts when setting up and solving a problem.

3. Ability to perform a series of computations (Grades 1, 2, 3, 6, and 8).

   The student can perform in a correct sequence all of the individual computations needed to solve a problem.

4. Ability to regroup (Grades 2, 3, 6, and 8).

   The student can regroup accurately as required by a problem. This includes knowing when in a computation to regroup, what quantity to regroup, and the place values of the numbers involved in the regrouping.

5. Understanding of fractions (Grades 3, 6, and 8).

   The student can identify a fraction's numerator and denominator. The student knows how to manipulate each part of a fraction when performing a calculation with that number.

6. Ability to operate with fractions (Grades 3, 6, and 8).

   The student can find the lowest common denominator for two fractions, convert a fraction with one denominator to an equivalent fraction with another denominator, and reduce an improper fraction to its lowest terms.

MATHEMATICS: OPERATIONS
(GRADES 1, 2, 3, 6, AND 8)

WHAT SOME INSTRUCTIONAL CONSIDERATIONS ARE (continued)

7. Ability to operate with decimals (Grades 6 and 8).

   The student can correctly place decimal points in decimal numbers when performing operations.

8. Ability to operate with percents (Grade 8).

   The student can convert a percent to either a decimal or a fraction in order to multiply or divide with that percent. Conversely, the student can convert either a decimal or a fraction to a percent.

MATHEMATICS: OPERATIONS
(GRADES 1, 2, 3, 6, AND 8)

WHAT ACTIVITIES MIGHT BE DEVELOPED

GRADES 1, 2, 3, 6, AND 8

Although there are clearly some instances in which a particular teaching activity would be appropriate for one grade range yet inappropriate for another, most teachers report that they can often successfully adapt an instructional activity designed for younger or older students.

The activities presented below can, with minor modifications, serve as practive for the overall operations skill, the subskills tested, and the other related skills offered for instructional consideration.

These activities are intended only as examples to stimulate the teacher's thinking. The activities offer merely possibilities, not prescriptions.

EARLY GRADE POSSIBILITIES

Fun with Facts

The following activities are grouped together because they all provide students with opportunities to review the basic number facts.

1. Prepare crossword puzzles that have numbers instead of words for answers.

EXAMPLE:

1) 3	2) 3	■	4) 1
5) 4	6) 5	■	8) 2

(etc.)

Across	Down
1. 3x11=____	4. 3+3+3+3=____
5. 23+22=____	1. 29+5=____
	2. 7x5=____

2. Have students fill in blank bingo cards with computational problems that result in an integer between 1-81. (For example, 6 ÷ 2, 3 x 4, 8 + 6, 9 - 7, etc.) As numbers are called, students cover any squares on their card which result in that solution. Then play the game in reverse, with students entering integers on their cards and the caller reading out simple problems.

EARLY GRADE POSSIBILITIES (continued)

Picture That

Students make up, then solve, simple pictorial fraction problems.

1. Give each student a large sheet of paper, divided into four or more sections.

2. Students are to draw a fraction problem in each section. For example, they might draw two squares, one divided into fourths with two fourths shaded and the other divided into fourths with one fourth shaded. Students also include a + or - operational sign.

3. On a separate sheet of paper students record the numerical form of each problem and its correct answer. (For example, $\frac{2}{4} - \frac{1}{4} = \frac{1}{4}$).

4. Students exchange their drawings and then try to solve each other's problems. Answers are checked against the answer sheets.

Going Backwards

Having students "work in reverse" provides another approach to practicing basic operations skills.

1. Prepare a list of numbers. This list represents the answers for which students are to supply the problems. The answers may be whole numbers and/or proper fractions, depending upon the level of the class.

2. Students are to devise as many problems as they can that result in each answer given. These problems may require addition, subtraction, multiplication, or division.

3. Check each student's problems, to make sure they result in the answers given. Prizes could be awarded to the students who created the most correct problems.

MATHEMATICS: OPERATIONS
(GRADES 1, 2, 3, 6, AND 8)

LATER GRADE POSSIBILITIES

Related Operations

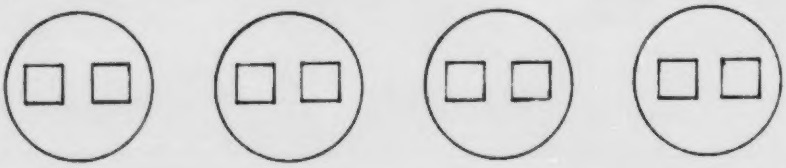
This activity is designed to review (or establish) the basic idea of multiplication and division sentences and teach the words associated with such sentences.

1. For multiplication, make cards for the necessary words and symbols and then manipulate those cards to show a sentence.

   EXAMPLE: $\boxed{\text{FACTOR}}\ \boxed{\text{X}}\ \boxed{\text{FACTOR}}\ \boxed{=}\ \boxed{\text{PRODUCT}}$

2. Then relate the multiplication sentence to the models for multiplication.

   EXAMPLE:



   4 sets of 2 is 8

   4 x 2 = 8

   $\boxed{\text{FACTOR}}\ \boxed{\text{X}}\ \boxed{\text{FACTOR}}\ \boxed{=}\ \boxed{\text{PRODUCT}}$

3. Follow a similar procedure with division, in this instance showing the relationship between the two operations.

   $\boxed{\text{FACTOR}}\ \boxed{\text{x}}\ \boxed{\text{FACTOR}}\ \boxed{=}\ \boxed{\text{PRODUCT}}$

   EXAMPLE:

   $\boxed{\text{PRODUCT}}\ \boxed{\div}\ \boxed{\text{FACTOR}}\ \boxed{=}\ \boxed{\text{FACTOR}}$

4. Prepare exercises such as the following:

   "Write two related division sentences for each multiplication sentence."

   a. 3 x 6 = 18

   b. 7 x 5 = 35

   c. 4 x 9 = 36

   d. 7 x 8 = 56

MATHEMATICS: OPERATIONS
(GRADES 1, 2, 3, 6, AND 8)

LATER GRADE POSSIBILITIES (continued)

Palindrome Puzzles

Addition skills are put to use in creating interesting mathematical puzzles.

1. Tell students they will be creating palindromes. (A palindrome is a number that reads the same from left to right or right to left, for example, 121.)
2. Have them begin by choosing any two or three digit number. Next they are to reverse the digits in that number and sum the two addends
3. The process continues until the sum is a palindrome.

EXAMPLE:

$$\begin{array}{r} 649 \\ +946 \\ \hline 1695 \\ +5961 \\ \hline 7656 \\ +6567 \\ \hline 14223 \\ +32241 \\ \hline 46464 \end{array}$$

Calamity Kid

This activity allows students to practice completing a series of calculations. It also provides them with knowledge of commonly-occuring types of errors made in performing basic calculations.

1. Prepare sets of basic operations problems at a level of difficulty appropriate for the content currently being studied by students. Each problem should be presented in a format that shows a solution plus all the calculations necessary to reach that solution.
2. Some of the problems should be worked correctly and some incorrectly. The incorrect solutions should be based on errors commonly made by students. These errors include incorrectly adding, subtracting, multiplying or dividing single digits, failing to regroup when necessary, regrouping when not necessary, incorrectly lining up digits, and performing the wrong operation.
3. Students are to check each problem and indicate whether it is correct or incorrect. All incorrect problems should be reworded to be correct. Students can also be asked to categorize the type of error occuring in each incorrect problem.

LATER GRADE POSSIBILITIES (continued)

What's Possible?

The skill of estimation can be promoted as a tool students can use to check their calculational work.

1. Present problems along with one or more proposed answers for each one. (The steps in solving each problem need not be shown.)
2. Do not allow students time to work the problems. Instead they are to indicate, for each problem, which proposed answers seem reasonable and which ones seem unreasonable.
3. Discuss with students the correct choices as well as strategies for approximating answers to calculational problems without actually computing an exact solution.

Name That Prime

This game provides practice in finding prime numbers. These numbers are needed in turn to find least common denominators.

1. Divide the class into two teams. Place a group of numbers on the chalkboard as illustrated below.

1 13 5 8 18 4
3 9 15
2 14 6 12 17 11 10 16 7

2. Call out a number (for example, "35"). The first player on the first team reports all the prime factors for that number, using only the set available on the board. One point is scored for each factor named.
3. When the first player on the first team is finished, the first player on the other team has a chance to add any additional prime factors that have not been named or to dispute as incorrect any factors that have been named. Two points are scored for each correct addition or deletion this player makes.
4. Play continues to alternate between the two teams, with each one receiving an equal number of chances to respond first to the number called out by the teacher and to judge the correctness of another player's responses.
5. Prime numbers may be included in the game as numbers called out by the teacher. If they are included, any player who first identifies a number as prime scores three points.
6. The set of factors to be considered can be changed frequently, adding variety to the game.

LATER GRADE POSSIBILITIES (continued)

Take the Challenge

Students may enjoy trying to "outwit" one another while also practicing their basic operations skills.

1. Divide the class into teams. Each team receives a problem limitation sheet. This sheet lists the kinds of problems that teams are to create. For example, the sheet might say: "Make up two multiplication problems. Each one must have two mixed numbers, neither one of which can be greater than 20. Each must have different denominators in the fractions. Neither denominator can be greater than 6."

2. Each team prepares the specified number of problems, along with an answer key. Teams exchange problems and compete to see which team can solve all of the other team's problems most rapidly. Answers are checked against the answer key provided and any disagreements arbitrated by the teacher or a panel of student judges chosen for this purpose.

3. The number and difficulty level of eligible problems can both be increased gradually over time.

MATHEMATICS: MEASUREMENT
(GRADE 1, 2, 3, 6, AND 8)

WHAT SKILLS ARE TESTED
AND WHERE

GRADES 1, 2, 3, 6, AND 8

OBJECTIVE

The student can apply measurement concepts.

EXPLANATION

Through the development of measurement skills, students can gather information about the world in which they live. These skills might first be developed using direct experiences involving measurable properties such as time, temperature, distance, weight, and volume. Through exploration and estimation of these properties, students can begin to shape their expectations about the physical world. Later, students can investigate specific measurement tools and systems, finding out about the appropriateness of various devices and measurement units for the situations they are encountering. Estimation may be used as a means to verify the results of their investigations. Students' ever-increased skill with measurement concepts and applications should provide them with a powerful tool they can use throughout their lives.

SUBSKILLS TESTED BY GRADE

The following chart contains the list of subskills tested as part of the Measurement Objective. These subskills are not intended to limit the curriculum but to provide information on those aspects of the objective tested in BSAP. The X's indicate at what grades each subskill is tested.

MATHEMATICS: MEASUREMENT
(GRADES 1, 2, 3, 6, AND 8)

SUBSKILLS TESTED BY GRADE (continued)

SUBSKILLS TESTED	GRADES TESTED				
	1	2	3	6	8
1. Identifying Units of Measurement The student can determine the appropriate type of measurement and select the appropriate units of measurement.	X	X	X	X	X
2. Estimation The student can estimate measurable quantities.			X	X	X
3. Using Measuring Devices The student can read and interpret information by using a measuring device.	X	X	X	X	X
4. Operations and Conversions The student can perform calculations using units of measurement within a given measurement system.			X	X	X
5. Scale Drawings The student can read and interpret scale drawings.				X	X

MATHEMATICS: MEASUREMENT
(GRADES 1, 2, 3, 6, AND 8)

HOW SKILLS ARE TESTED

GRADES 1, 2, 3, 6, AND 8

TEST ITEM OVERVIEW

The student is asked to apply units of measurement or representations of measuring devices to find the exact or most reasonable answer to problems requiring:

1. identifying units of measurement,
2. estimation,
3. using measuring devices,
4. operations and conversions, and
5. scale drawings.

KEYS TO SKILL DIFFICULTY

The difficulty of the test items is varied across grades by changing the key characteristics of the skill.

The following chart summarizes how these variables are tested across grade levels for the skill and its subskills.

MATHEMATICS: MEASUREMENT
(GRADES 1, 2, 3, 6, AND 8)

SUMMARY CHART FOR
KEYS TO SKILL DIFFICULTY

KEYS TO SKILL DIFFICULTY	TEST LIMITS				
	GRADE 1	GRADE 2	GRADE 3	GRADE 6	GRADE 8
IDENTIFYING UNITS OF MEASUREMENT					
NATURE OF PROBLEM	Identify money or time units or choose an appropriate measuring device.	Choose an appropriate unit of measure.	Choose an appropriate unit of measure.	Choose an appropriate unit of measure.	Choose an appropriate unit of measure.
TYPES OF UNITS	See Grade 1 list of eligible units on page 87.	See Grade 2 list of eligible units on page 87.	See Grade 3 list of eligible units on pages 87-88.	See Grade 6 list of eligible units on page 88.	Linear, square, and cubic units. Also see Grade 8 list of eligible units on page 89.
APPROPRIATE MEASURING DEVICES	Height, temperature, time, weight.	Not applicable.	Not applicable.	Not applicable.	Not applicable.
		ESTIMATION			
NATURE OF PROBLEM			Estimating size, time, or weight of a displayed measurable quantity.	Estimating size, time, or weight of a displayed measurable quantity.	Estimating size of a planar or solid shape or a displayed measurable quantity (square or cubic units.)
		USING MEASURING DEVICES			
TYPES OF MEASURING DEVICES	Clocks.	Clocks, rulers, thermometers, scales, cups, money, calendar.	Clocks, rulers, thermometers, scales, cups, money, calendar.	Not tested.	Protractors.
READINGS	Reading clocks. See further details on readings on page 85.	Reading Clocks. Money. Reading Thermometers. Using Rulers. Reading Scales. Reading Calendars. See further details on readings on page 85.	Reading Clocks. Money. Reading Thermometers. Using Rulers. Reading Scales. Reading Measuring Cups. See further details on readings on page 86.	Not tested.	Reading Protractors. Readings to 1 degree.

MATHEMATICS: MEASUREMENT
(GRADES 1, 2, 3, 6, AND 8)

SUMMARY CHART FOR
KEYS TO SKILL DIFFICULTY (Continued)

KEYS TO SKILL DIFFICULTY	TEST LIMITS				
	GRADE 1	GRADE 2	GRADE 3	GRADE 6	GRADE 8
CONVERSIONS					
NATURE OF PROBLEM	Not tested.	Not tested.	Converting from one unit to another. See pages 87-88.	Regrouping with units in the same system. See page 88.	Computing with units in the same system. See page 89.
TYPES OF NUMBERS	Not tested.	Not tested.	Not applicable.	Customary 1- or 2-digit integers. or Fractions or mixed numbers with 1-digit numerators and denominators. Metric Decimals with 1- to 3-digits.	Customary 1-2 digit integers.
REGROUPING REQUIRED	Not tested.	Not tested.	No regrouping.	Yes, from one unit of measure to another.	Yes, from one unit of measure to another.
TYPES OF OPERATIONS	Not tested.	Not tested.	Not applicable.	Not applicable.	Single operation using compound measurement (customary only); addition, subtraction, or multiplication.
SCALE DRAWINGS					
NATURE OF PROBLEM	Not tested.	Not tested.	Not tested.	Reading maps, floor plans, or blueprints.	Reading maps, floor plans, or blueprints.
ELIGIBLE UNITS	Not tested.	Not tested.	Not tested.	Inches (scale) to feet or miles (actual). or Centimeters (scale) to meters or kilometers (actual).	Inches (scale) to feet or miles (actual). or Centimeters (scale) to meters or kilometers (actual). Abbreviations allowed. See page 89.
SCALE FACTOR	Not tested.	Not tested.	Not tested.	A multiple of 10.	A 1-3 digit number.

MATHEMATICS: MEASUREMENT
(GRADE 1)

HOW SKILLS ARE TESTED

GRADE 1

OBJECTIVE

The student can apply measurement concepts.

SUBSKILLS TESTED AT GRADE 1

There is an "X" in the box next to each subskill tested in Grade 1.

☒ 1. Identifying Units of Measurement

The student can determine the appropriate type of measurement and select the appropriate units of measurement.

☐ 2. Estimation

The student can estimate measurable quantities.

☒ 3. Using Measuring Devices

The student can read and interpret information by using a measuring device.

☐ 4. Operations and Conversions

The student can perform calculations using units of measurement within a given measurement system.

☐ 5. Scale Drawings

The student can read and interpret scale drawings.

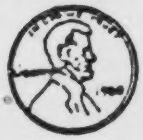
MATHEMATICS: MEASUREMENT
(GRADE 1)

SAMPLE TEST ITEMS AND DIRECTIONS

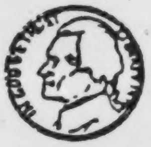
The following items are samples of the types administered in BSAP.

Subskill Tested: Identifying Units of Measurement

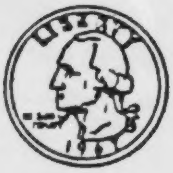
(Teacher reads aloud) Look at the coins.
Find the coin that is worth 1¢.



● (correct)



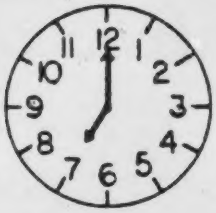
○



○

Subskill Tested: Using Measuring Devices

(Teacher reads aloud) Look at the clock.
Find the time the clock shows.



○ 5 o'clock

○ 6 o'clock

● 7 o'clock (correct)

(Teacher does not read answer choices.)

MATHEMATICS: MEASUREMENT
(GRADE 2)

HOW SKILLS ARE TESTED

GRADE 2

OBJECTIVE

The student can apply measurement concepts.

SUBSKILLS TESTED AT GRADE 2

There is an "X" in the box next to each subskill tested in Grade 2.

☒ 1. Identifying Units of Measurement

The student can determine the appropriate type of measurement and select the appropriate units of measurement.

☐ 2. Estimation

The student can estimate measurable quantities.

☒ 3. Using Measuring Devices

The student can read and interpret information by using a measuring device.

☐ 4. Operations and Conversions

The student can perform calculations using units of measurement within a given measurement system.

☐ 5. Scale Drawings

The student can read and interpret scale drawings.

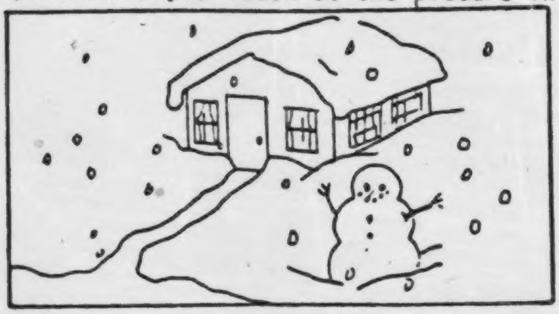
MATHEMATICS: MEASUREMENT
(GRADE 2)

SAMPLE TEST ITEMS AND DIRECTIONS

The following test items are samples of the types administered in BSAP.

Subskill Tested: Identifying Units of Measurement

(Teacher says) Look at the picture in the box.



Which unit tells how cold it is outside?

(Teacher does not read answer choices).

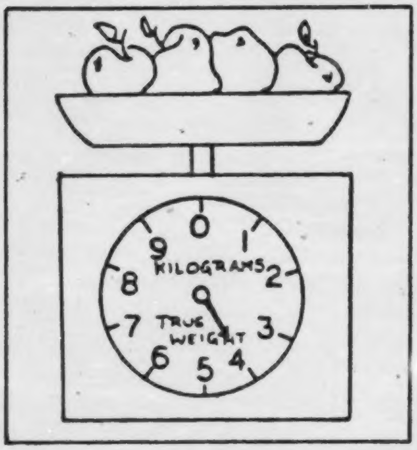
● degrees (correct)

○ cups

○ inches

Subskill Tested: Using Measuring Devices

(Teacher says) Look at the picture in the box.



How much do the apples weigh?

(Teacher does not read answer choices).

○ 2 kilograms

● 4 kilograms (correct)

○ 5 kilograms

MATHEMATICS: MEASUREMENT
(GRADE 3)

HOW SKILLS ARE TESTED

GRADE 3

OBJECTIVE

The student can apply measurement concepts.

SUBSKILLS TESTED AT GRADE 3

There is an "X" in the box next to each subskill tested in Grade 3.

☒ 1. Identifying Units of Measurement

The student can determine the appropriate type of measurement and select the appropriate units of measurement.

☒ 2. Estimation

The student can estimate measurable quantities.

☒ 3. Using Measuring Devices

The student can read and interpret information by using a measuring device.

☒ 4. Operations and Conversions

The student can perform calculations using units of measurement within a given measurement system.

☐ 5. Scale Drawings

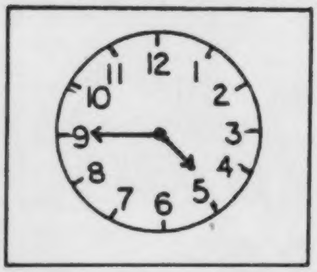
The student can read and interpret scale drawings.

MATHEMATICS: MEASUREMENT
(GRADE 3)

SAMPLE TEST ITEMS AND DIRECTIONS (continued)

Subskill Tested: Using Measuring Devices

(Teacher says) Look at the picture in the box below.



What time is shown on the clock?

(Teacher does not read answer choices).

- ● 4:45 (correct)
- ○ 5:15
- ○ 5:45

Subskill Tested: Conversions

(Teacher says) Look at the picture in the box below.
Work the problem.

1 yard = ?

- ● 3 feet (correct)
- ○ 3 inches
- ○ 12 feet

(Teacher does not read answer choices).

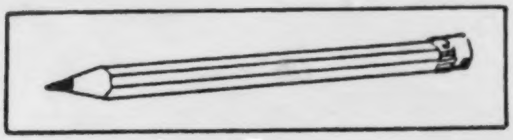
MATHEMATICS: MEASUREMENT
(GRADE 3)

SAMPLE TEST ITEMS AND DIRECTIONS

The following test items are samples of the types administered in BSAP.

Subskill Tested: Identifying Units of Measurement

(Teacher says) Look at the picture in the box below.



You want to know how long a pencil is.
Which one of these units is best to use?

(Teacher does not read answer choices).

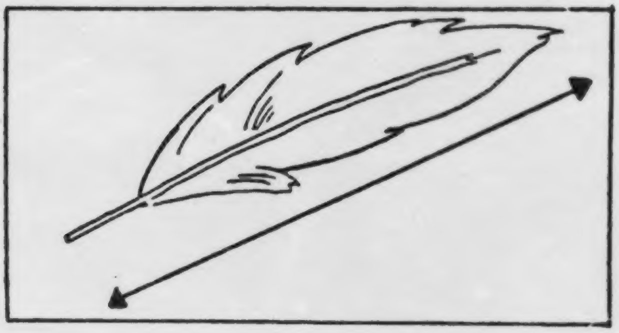
● inches (correct)

○ feet

○ yards

Subskill Tested: Estimation

(Teacher says) Look at the picture in the box below.



How long is the feather?

(Teacher does not read answer choices).

● About 3 inches (correct)

○ About 12 inches

○ About 30 inches

MATHEMATICS: MEASUREMENT
(GRADE 6)

HOW SKILLS ARE TESTED

GRADE 6

OBJECTIVE

The student can apply measurement concepts.

SUBSKILLS TESTED AT GRADE 6

There is an "X" in the box next to each subskill tested in Grade 6.

☒ 1. Identifying Units of Measurement

The student can determine the appropriate type of measurement and select the appropriate units of measurement.

☒ 2. Estimation

The student can estimate measurable quantities.

☒ 3. Using Measuring Devices

The student can read and interpret information by using a measuring device.

☒ 4. Operations and Conversions

The student can perform calculations using units of measurement within a given measurement system.

☒ 5. Scale Drawings

The student can read and interpret scale drawings.

MATHEMATICS: MEASUREMENT
(GRADE 6)

SAMPLE TEST ITEMS AND DIRECTIONS

The following test items are samples of the types adm[illegible]ered in BSAP.

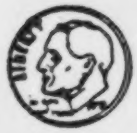
Directions for All Items

(Student reads)

1. Solve the following problems.
2. Reduce all fractions to lowest terms.
3. Mark the letter of the correct answer on your answer sheet.

Subskill Tested: Identifying Units of Measurement

What unit would be best for measuring the weight of a dime?



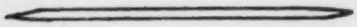
(A) kilograms

(B) grams (correct)

(C) tons

(D) pounds

Subskill Tested: Estimation



About how long is this toothpick?

(A) 0.5 centimeters

(B) 5 centimeters (correct)

(C) 50 centimeters

(D) 500 centimeters

SAMPLE TEST ITEMS AND DIRECTIONS (continued)

Subskill Tested: Conversions

1 pound 8 ounces = ?

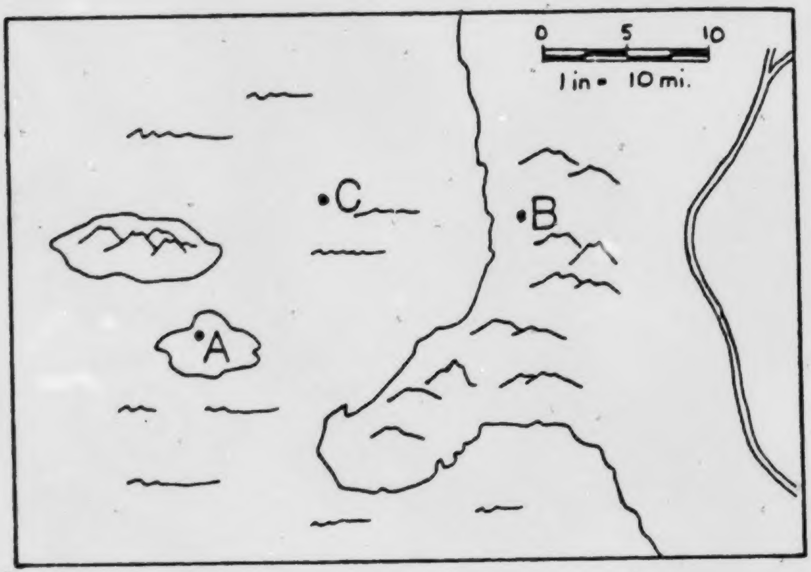
(A) 18 ounces

(B) 20 ounces

(C) 24 ounces (correct)

(D) 26 ounces

Subskill Tested: Scale Drawings



How far is A from B?

(A) 2 mi.

(B) 10 mi.

(C) 20 mi. (correct)

(D) 30 mi.

MATHEMATICS: MEASUREMENT
(GRADE 8)

HOW SKILLS ARE TESTED

GRADE 8

OBJECTIVE

The student can apply measurement concepts.

SUBSKILLS TESTED AT GRADE 8

There is an "X" in the box next to each subskill tested in Grade 8.

☒ 1. Identifying Units of Measurement

The student can determine the appropriate type of measurement and select the appropriate units of measurement.

☒ 2. Estimation

The student can estimate measurable quantities.

☒ 3. Using Measuring Devices

The student can read and interpret information by using a measuring device.

☒ 4. Operations and Conversions

The student can perform calculations using units of measurement within a given measurement system.

☒ 5. Scale Drawings

The student can read and interpret scale drawings.

MATHEMATICS: MEASUREMENT
(GRADE 8)

SAMPLE TEST ITEMS AND DIRECTIONS

The following test items are samples of the types administered in BSAP.

Directions for All Items:

(Student reads)

1. Solve the following problems.
2. Reduce all fractions to lowest terms.
3. Mark the letter of the correct answer on your answer sheet.

Subskill Tested: Identifying Units of Measurement

In what units would the length of an airplane be given?

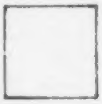
(A) millimeters

(B) cubic inches

(C) square feet

(D) meters (correct)

Subskill Tested: Estimation



Estimate the area of this square.

(A) 1 square inch

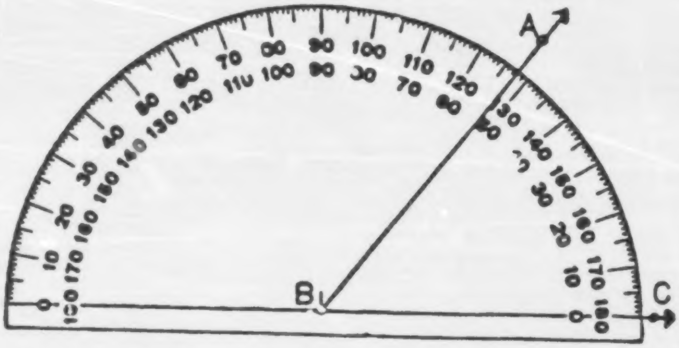
(B) 2 square inches

(C) $\frac{1}{2}$ square inch

(D) $\frac{1}{4}$ square inch (correct)

SAMPLE TEST ITEMS AND DIRECTIONS (continued)

Subskill Tested: Using Measuring Devices



What is the measure of △ ABC?

(A) 38°

(B) 52° (correct)

(C) 68°

(D) 128°

Subskill Tested: Conversions

9 ft. 7 in.
+ 0 ft. 9 in.

(A) 9 ft. 16 in.

(B) 10 ft. 0 in.

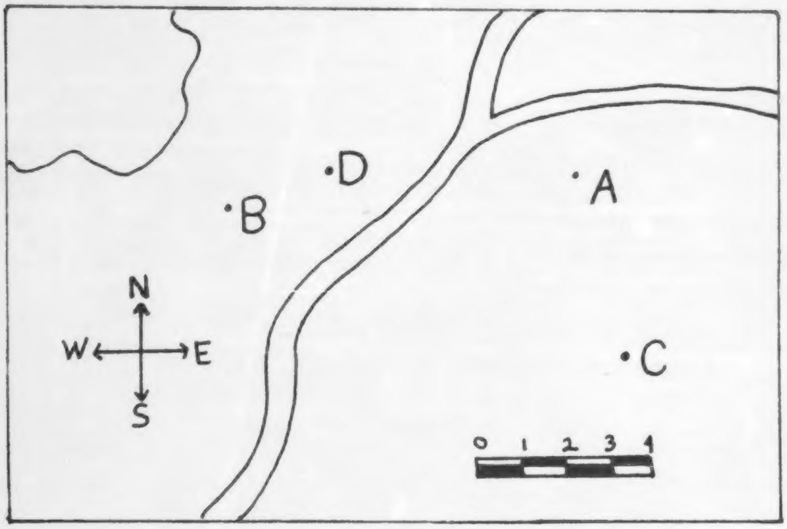
(C) 10 ft. 4 in. (correct)

(D) 10 ft. 6 in.

MATHEMATICS: MEASUREMENT
(GRADE 8)

SAMPLE TEST ITEMS AND DIRECTIONS (continued)

Subskill Tested: Scale Drawings



What is the distance between A and B?

(A) 8 mi. (correct)

(B) 12 mi.

(C) 4 mi.

(D) 2 mi.

MATHEMATICS: MEASUREMENT
(GRADES 1, 2, 3, 6, AND 8)

WHAT SOME INSTRUCTIONAL CONSIDERATIONS ARE

GRADES 1, 2, 3, 6, AND 8

Instructionally, there are some other skills that ought to be considered. Although not directly tested in BSAP, these skills are related to the overall Measurement skill and its related subskills. Listed below are the major supporting skills necessary to the development of the overall measurement skill tested by this objective.

1. Interpretation of pictured measuring devices (Grades 1, 2, 3, 6, and 8, as applicable).

   The student can "read" pictorial representations of the various measuring devices tested (e.g., clocks, scales, rulers, thermometers, etc.).

2. Comprehension of measurement situations (Grades 1, 2, 3, 6, and 8).

   The student can analyze a situation described pictorially and/or verbally to determine, from the information given, what quantity or property is to be measured. This requires familiarity with the words used to describe measurable attributes (e.g., "tall," "wide," "warm," "heavy," etc.).

3. Knowledge of measurement units, abbreviations, and symbols (Grades 1, 2, 3, 6, and 8, as applicable).

   The student can recognize all of the measurement units, symbols, and abbreviations eligible for testing and can associate each with the physical attribute it describes as well as with the device that generates it. (For example, kilograms are a measure of weight determined by using a scale.)

4. Selection of appropriate measurement units (Grades 3, 6, and 8).

   The student can differentiate among the various units to measure a particular attribute and recognize when each unit is most appropriate to use. (For example, miles, not inches, are more appropriately used to measure long distances.)

5. Knowledge of measurement equivalents (Grades 3, 6, and 8).

   The student knows the measurement equivalents eligible for testing (for example, 12 inches = 1 foot, 60 seconds = 1 minute). This skill includes the ability to identify the larger/smaller unit of measure.

MATHEMATICS: MEASUREMENT
(GRADES 1, 2, 3, 6, AND 8)

WHAT SOME INSTRUCTIONAL CONSIDERATION ARE (continued)

6. Determination of measurement plausibility (Grades 3, 6, and 8).

   The student is familiar with the physical properties of common objects and events and can judge the reasonableness of estimations of those properties.

7. Interpretation of scaled measurement (Grade 8).

   The student understands the concept of "scale distance" as versus "actual distance" and can distinguish on a scale drawing between the units used to measure each.

MATHEMATICS: MEASUREMENT
(GRADES 1, 2, 3, 6, AND 8)

WHAT ACTIVITIES MIGHT BE DEVELOPED

GRADES 1, 2, 3, 6, AND 8

Although there are clearly some instances in which a particular teaching activity would be appropriate for one grade range yet inappropriate for another, most teachers report that they can often successfully adapt an instructional activity designed for younger or older students.

The activities presented below can, with minor modifications, serve as practice for the overall Measurement skill, the subskills tested, and the other related skills offered for instructional consideration.

These activities are intended only as examples to stimulate the teacher's thinking. The activities offer merely possibilities, not prescriptions.

EARLY GRADE POSSIBILITIES

Let's Find Out

All of the following estimation activities provide students with experience in judging the relative magnitudes of objects and events.

1. Have students select a motor activity to perform (for example, hopping 20 times or clapping their hands 50 times). Before performing the activity, students estimate how long it will take to complete. After writing down their estimates, students take turns timing each other, then compare their estimates with the actual times.

2. Prepare a chart with headings that correspond to the various units that can be used to measure the same attribute (for example, 1 inch, 1 foot, and 1 yard, or 1 ounce and 1 pound, etc.). Students first list those objects in the classroom they estimate are in each category, then measure each object to verify their approximations.

3. Have students identify some events and objects the magnitudes of which they would like to know (for example, the weight of an elephant, the height of the tallest building in the United States, the temperature inside a pizza oven, etc.). Then have them try to figure out a way to obtain the desired information (ask someone, write a letter, use an encyclopedia, etc.). Assign individual students the responsibility for finding out each answer. Students might enjoy publishing a newspaper with their findings so that they can share their efforts with other classes.

MATHEMATICS: MEASUREMENT
(GRADES 1, 2, 3, 6, AND 8)

EARLY GRADE POSSIBILITIES (continued)

Draw It

This activity allows students to sharpen their direction-following skills while also testing their knowledge of specific measurement devices.

1. Supply students with drawing paper and pencils or crayons, then present a series of written or verbal directions.

2. Each set of directions should require students to draw a specified measuring device showing a designated measurement (for example, draw a clock that shows 10 a.m.; draw a cup that has 1/4 cup of milk in it; draw a thermometer that shows 50°C, etc.).

3. When students complete their drawings, they can exchange papers and check each other's work.

A New System

Students' investigations using non-standard measuring systems should broaden their concept of the nature of measurement.

1. Make available sticks of two lengths. The sticks should not have markings of any kind. Students, working in pairs, are to measure the length of a designated object (for example, the chalk tray) using the longer stick. Students also are to name their new stick unit.

2. Next, have students measure the width of the room using the longer stick. Then they should repeat the activity using the shorter stick.

3. Have students compare and discuss their results, then decide which stick length is the more practical to use for each set of measurements.

4. Follow up on the activity above using groups of three or four students working together to measure various classroom objects or distances taped along the floor. Ask the groups to record their measurements, then have the groups compare results and answer questions such as, "Is a measurement in short sticks equal to the same measurement in long sticks?" "Which stick is more practical for each job?"

5. Select an object for measurement that does not allow the stick length to fit an even number of times. Have students estimate the amount of the unit left over and lead them to the idea of rounding to the nearest whole unit.

6. Prepare an analogous activity to measure liquid. Use odd-sized small cans and sand or water. Conduct the same types of discussions about comparisons, practicality, and rounding as outlined above for stick units.

MATHEMATICS: MEASUREMENT
(GRADES 1, 2, 3, 6, AND 8)

LATER GRADE POSSIBILITIES

Units of Measurement

This activity provides students with practice in determining the appropriate unit of measure to use when determining time, length, weight, volume, temperature, and area.

1. As a class, make a list of measuring units available for each property to be studied, using either metric or customary units. Display the information, ordered from smaller to larger units, on the chalkboard or in a poster.

   Example: LENGTH - inch, foot, yard, mile; or millimeter, centimeter, meter, kilometer

2. Divide the class into small groups and appoint a recorder in each group.

3. Assign a measurable property and its list of units to each group. The group's task is to think of objects that would most likely be measured in each unit.

   Example: LENGTH - INCH - pencil, book, paper clip
   FOOT - car, tree, building
   YARD - length of the hallway
   MILE - highway distance

4. Call time after a predetermined number of minutes and have groups take new properties and start once again. All groups are to cover all properties.

5. When the activity is completed, groups should share their lists and compile a master list.

MATHEMATICS: MEASUREMENT
(GRADES 1, 2, 3, 6, AND 8)

LATER GRADE POSSIBILITIES (continued)

Conversion Matches

This activity encourages students to practice converting between simple and compound measurements.

1. Make a set of cards. Each card should state a specified time, length, weight or volume (for example, 1 hour, 10 minutes).
2. Make another set of cards. Each card should match a quantity specified in the first set of cards but describe that quantity in larger or smaller units (for example, 70 minutes).
3. Combine the two sets of cards into one deck and ask students to find the quantities that make a match.
4. Students should check each other's work to insure that the correct matches were made.

Terminology Bee

The measurement version of a spelling bee helps students remember measurement abbreviations and equivalents.

1. Divide the class into teams and ask students to supply meanings and/or spellings for measurement unit abbreviations (for example, "mi.").
2. As a variation, have students supply equivalents for specified measurement units (for example, "4 quarts = ? gallons").

Long List

Students may become more aware of the many ways measurement is used after completing the investigations required by this activity.

1. Establish categories for places where measurement devices and concepts are frequently used (for example, home, school, work, recreation, travel, etc.).
2. Students (working alone or in groups) are to research the measurement devices and applications associated with each category, then report on these to the rest of the class.
3. As an option, students might be assigned to prepare a report on unusual measurement devices (i.e., ones that have not been studied already in class).

LATER GRADE POSSIBILITIES (continued)

Scaling It

Preparing scale drawings requires students to apply several different measurement skills.

1. Have students prepare scale drawings of common objects, using an agreed-upon scale for all of their drawings (for example, 1 cm = 1 m). Students exchange drawings, then verify the work of others.

2. Ask students to make several scale drawings of the same place (their bedroom perhaps, or the school yard). Each drawing should use a different scale ratio (for example 1 inch = 1 foot; 1 inch = 2 feet; 1 inch = 1 yard). Have students compare their drawings and comment upon which scale ratio seemed most appropriate and why.

3. Have students apply the concept of scale to other measurable attributes. For example, if 1 sec. = 1 min., how long would an hour television show be if it were reduced to scale?

4. Locate or prepare a series of scale drawings and maps. Remove the scale ratio from each but leave on the indicators of actual length or distance. (For instance, a map might be labeled to show the distance, in miles, between major cities) Provide students with rulers and have them determine the scale ratio that was used to prepare each drawing or map.

MEASUREMENT
CONTENT SUPPLEMENT
(GRADES 1, 2, AND 3)

READINGS FOR VARIOUS MEASUREMENT DEVICES

GRADE ONE

CLOCKS: Face with hours numbered.
Readings to hour times only.

GRADE TWO

CLOCKS: Face with hours numbered.
Readings to hour or ½ hour.

MONEY: Two to three different coins (penny, nickel, dime, quarter, half-dollar) or 1 dollar bill.

THERMOMETERS: 1^{o}F or 1^{o}C graduations, numbered every 10^{o}.
Readings to nearest 10^{o}.
Scale is from -10^{o} to 110^{o} F or from -20^{o}C to 50^{o}C.

RULERS: 1 inch or 1 centimeter graduations.
Units are actual size.
Each graduation is numbered.
Readings to 1 inch or 1 centimeter.

SCALES: 1 lb. or 1 kg. graduations:
Readings to 1 lb. with numbers ≤ 20 lbs.
Readings to 1 kg with numbers ≤20 kg.

or

10 lb. or 10 kg graduations:
Readings to 10 lb. or 10 kg with numbers ≤ 100 lbs. or ≤ 100 kg.

CALENDARS: One month displayed.
No abbreviations
Ordinal numbers may be used.

MEASUREMENT
CONTENT SUPPLEMENT
(GRADES 1, 2, AND 3)

READINGS FOR VARIOUS MEASUREMENT DEVICES (continued)

GRADE THREE

CLOCKS:	Face with numbered hours. Readings to nearest hour, ½ hour, or ¼ hour.
MONEY:	Four to five different coins or bills (penny, nickel, dime, quarter, half-dollar; \$1, \$5, \$10, \$20 bills).
THERMOMETERS:	1°F or 1°C graduations. Graduations are numbered every 10°. Readings to nearest 5°F or 5°C. Scale is from 5°F to 100°F or from 5°C to 50°C.
RULERS:	½ inch or 1 centimeter graduations. Units are actual size. Each graduation is numbered. Readings to nearest ½ inch or 1 centimeter.
SCALES:	1 lb. or 1 kg graduations. Graduations are numbered every 5 units. Readings to 1 lb. with numbers $\leq$ 100 lbs. or to 1 kg with numbers $\leq$ 100 kg.
MEASURING CUPS:	¼ cup or 50 ml graduations. Readings to nearest ¼ cup or 50 mL. Values from 0 to 1 cup or 0 to 250 mL.

MEASUREMENT
CONTENT SUPPLEMENT
(GRADES 1, 2, 3, 6, AND 8)

MEASUREMENT UNITS, CONVERSIONS, AND ABBREVIATIONS ELIGIBLE FOR TESTING.

GRADE ONE

TIME:
Days of the week
Months of the year
Seasons of the year

MONEY:

1¢	penny
5¢	nickel
10¢	dime
25¢	quarter

GRADE TWO

TIME:
Days of the week
Months of year
Seasons of year

MONEY:

1¢	penny
5¢	nickel
10¢	dime
25¢	quarter
50¢	half-dollar
$1.00	dollar

LENGTH:
inches
centimeters

WEIGHT:
pounds
kilograms

VOLUME:
cups

TEMPERATURE:
°C
°F

GRADE THREE

TIME:
60 seconds = 1 minute
60 minutes = 1 hour
24 hours = 1 day
7 days = 1 week
12 months = 1 year

MEASUREMENT
CONTENT SUPPLEMENT
(GRADES 1, 2, 3, 6, AND 8)

MEASUREMENT UNITS, CONVERSIONS, AND ABBREVIATIONS ELIGIBLE FOR TESTING. (continued)

GRADE THREE (continued)

LENGTH:
1 foot = 12 inches
1 yard = 36 inches
1 yard = 3 feet
1 meter = 100 centimeters

VOLUME:
2 cups = 1 pint
2 pints = 1 quart
4 quarts = 1 gallon

MONEY:
5 pennies = 1 nickel
2 nickels = 1 dime
5 nickels = 1 quarter
5 dimes = 1 half-dollar
2 quarters = 1 half-dollar
100 pennies = 1 dollar

$5, $10, and $20 may be shown

GRADE SIX

TIME:
60 seconds = 1 minute
60 minutes = 1 hour
24 hours = 1 day
7 days = 1 week
12 months = 1 year

LENGTH:
1 foot = 12 inches
1 yard = 36 inches
1 yard = 3 feet
1 mile = 5280 feet
1 meter = 100 centimeters
1 centimeter = 10 millimeters
1 kilometer = 1000 meters
1 meter = 1000 millimeters

WEIGHT:
16 ounces = 1 pound
1 ton = 2000 pounds
1 kilogram = 1000 grams
1 metric ton = 1000 grams

VOLUME:
2 cups = 1 pint
2 pints = 1 quart
4 quarts = 1 gallon
1 liter = 1000 milliliters

MEASUREMENT
CONTENT SUPPLEMENT
(GRADES 1, 2, 3, 6, AND 8)

MEASUREMENT UNITS, CONVERSIONS, AND ABBREVIATIONS ELIGIBLE FOR TESTING (continued)

GRADE EIGHT

TIME:

second(s) = sec.
minute(s) = min.
hour(s) = hr(s).
week(s) = wk(s).

LENGTH:

meter(s) = m
centimeter(s) = cm
millimeter(s) = mm
kilometer(s) = km
foot/feet = ft.
inch(es) = in.
yard(s) = yd.
mile(s) = mi.

WEIGHT:

ounce(s) = oz.
pound(s) = lb.
kilogram(s) = kg
gram(s) = g

VOLUME:

cup(s) = c.
pint(s) = pt.
quart(s) = qt.
gallon(s) = gal.
liter(s) = L
milliliters = mL

MATHEMATICS: GEOMETRY
(GRADES 1, 2, 3, 6, AND 8)

WHAT SKILLS ARE TESTED
AND WHERE

GRADES 1, 2, 3, 6, AND 8

OBJECTIVE

The student can apply geometric concepts.

EXPLANATION

This objective shares much in common with the measurement objective. In both skills, students can directly relate their mathematical learnings to the world around them.

SUBSKILLS TESTED BY GRADE

The following chart contains the list of subskills tested as part of the Geometry Objective. These subskills are not intended to limit the curriculum but to provide information on those aspects of the objective tested in BSAP. The X's indicate at what grades each subskill is tested.

SUBSKILLS TESTED	GRADES TESTED				
	1	2	3	6	8
1. Identification The student can identify simple geometric shapes.	X	X	X	X	X
2. Labeling The student can label geometric representations.				X	X
3. Comparison The student can identify congruent or similar figures.	X	X	X		X
4. Application The student can find the perimeter, area, or volume of common geometric shapes.				X	X

MATHEMATICS: GEOMETRY
(GRADES 1, 2, 3, 6, AND 8)

HOW SKILLS ARE TESTED

GRADES 1, 2, 3, 6, AND 8

TEST ITEM OVERVIEW

The test questions for this objective consist of situations in which the student must identify or apply a geometric concept to find the unique answer to the problems of:

1. identification,
2. labeling,
3. comparison, and
4. application.

KEYS TO SKILL DIFFICULTY

The difficulty of the test items is varied across grade by changing the key characteristics of the skill.

The following chart summarizes how these variables are tested across grade levels for the skill and its subskills.

MATHEMATICS: GEOMETRY
(GRADES 1, 2, 3, 6, AND 8)

SUMMARY CHART FOR KEYS TO SKILL DIFFICULTY

SKILLS/ KEYS TO SKILL DIFFICULTY	TESTING LIMITS				
	GRADE 1	GRADE 2	GRADE 3	GRADE 6	GRADE 8
IDENTIFICATION/LABELING					
NATURE OF PROBLEMS	Find the figure that goes with the given name.	Find the name that goes with the figure shown.	Same as Grades 1 & 2.	Choose the correct figure, term, or label.	Choose the correct figure, term, or label.
TYPES OF FIGURES/ TERMS	Figures in Grade 1 list. See page 113.	Figures in Grade 2 list. See page 113.	Figures in Grade 3 list. See page 113.	Figures in Grade 6 list. See page 113.	Figures in Grade 8 list. See page 113.
COMPARISON					
NATURE OF PROBLEM	Find the largest/ smallest figure.	Identify congruent or similar figures.	Find a line of symmetry or the mirror image of a figure.	Not tested.	Identify congruent or similar figures.
TYPES OF FIGURES	Geometric figures or shapes of common objects.	Same as Grade 1.	Same as Grade 1.	Not tested.	A geometric diagram with measured segments/ angles
APPLICATIONS					
NATURE OF PROBLEM	Not tested.	Not tested.	Not tested.	Using formulas for area, perimeter, or volume. See page 114.	Using formulas for area, perimeter, or volume. See page 114.
TYPES OF FIGURES	Not tested.	Not tested.	Not tested.	Rectangle or square.	Perimeter: circles or polygons. Area: triangles, circles, or parallelograms. Volume: rectangular prisms.
TYPES OF NUMBERS	Not tested.	Not tested.	Not tested.	Whole numbers.	Whole numbers.
MEASUREMENT UNITS ALLOWED	Not tested.	Not tested.	Not tested.	Inches, centimeters, feet, meters, or yards.	Inches, centimeters. feet, meters, or yards.

MATHEMATICS: GEOMETRY
(GRADE 1)

HOW SKILLS ARE TESTED

GRADE 1

OBJECTIVE

The student can apply geometric concepts.

SUBSKILLS TESTED AT GRADE 1

There is an "X" in the box next to each subskill tested in Grade 1.

☒ 1. Identification

The student can identify simple geometric shapes.

☐ 2. Labeling

The student can label geometric representations.

☒ 3. Comparison

The student can identify congruent or similar figures.

☐ 4. Application

The student can find the perimeter, area, or volume of common geometric shapes.

MATHEMATICS: GEOMETRY
(GRADE 1)

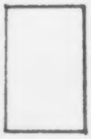
SAMPLE TEST ITEMS AND DIRECTIONS

The following test items are samples of the types administered in BSAP.

Subskill Tested: Identification

(Teacher says) Look at the shapes.

Find the triangle.



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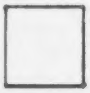

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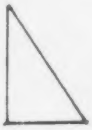


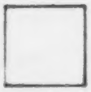
●

(correct)

Subskill Tested: Comparison

(Teacher says) Look at the shapes.

Find the shape that is the largest.



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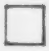

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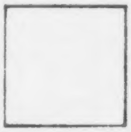


●

(correct)

MATHEMATICS: GEOMETRY
(GRADE 2)

HOW SKILLS ARE TESTED
GRADE 2

OBJECTIVE

The student can apply geometric concepts.

SUBSKILLS TESTED AT GRADE 2

There is an "X" in the box next to each subskill tested in Grade 2.

☒ 1. Identification

The student can identify simple geometric shapes.

☐ 2. Labeling

The student can label geometric representations.

☒ 3. Comparison

The student can identify congruent or similar figures.

☐ 4. Application

The student can find the perimeter, area, or volume of common geometric shapes.

MATHEMATICS: GEOMETRY
(GRADE 2)

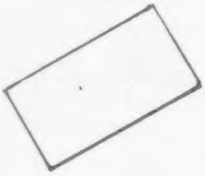
SAMPLE TEST ITEMS AND DIRECTIONS

The following test items are samples of the types administered in BSAP.

Subskill Tested: Identification

(Teacher says) Look at the figure.

Find the name of this figure.



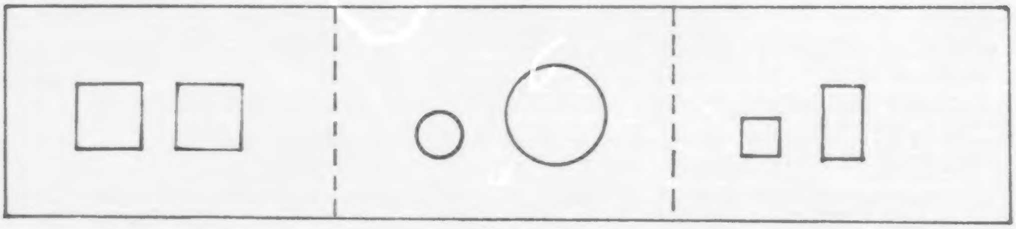
Triangle ○ Rectangle ● (correct) Square ○

(Teacher does not read answer choices.)

Subskill Tested: Comparison

(Teacher says) Look at the pairs of shapes.

Find the pair with the same size and shape.



● (correct) ○ ○

MATHEMATICS: GEOMETRY
(GRADE 3)

HOW SKILLS ARE TESTED

GRADE 3

OBJECTIVE

The student can apply geometric concepts.

SUBSKILLS TESTED AT GRADE 3

There is an "X" in the box next to each subskill tested in Grade 3.

☒ 1. Identification

The student can identify simple geometric shapes.

☐ 2. Labeling

The student can label geometric representations.

☒ 3. Comparison

The student can identify congruent or similar figures.

☐ 4. Application

The student can find the perimeter, area, or volume of common geometric shapes.

MATHEMATICS: GEOMETRY
(GRADE 3)

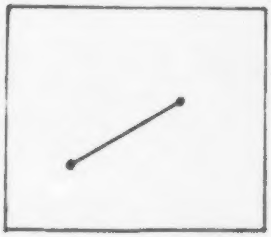
SAMPLE TEST ITEMS AND DIRECTIONS

The following test items are samples of the types administered in BSAP.

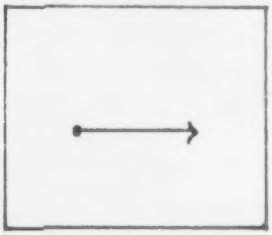
Subskill Tested: Identification

(Teacher says) Look at the figures in the boxes below.

Which box shows a line segment?



● (correct)



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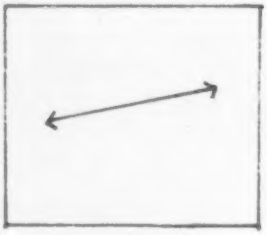

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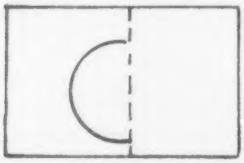
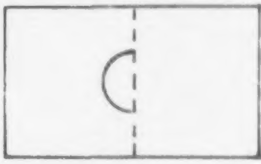
Subskill Tested: Comparison

(Teacher says) Look at the figure in the box on the left.

Find the figure that has the same shape and size.





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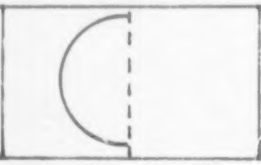

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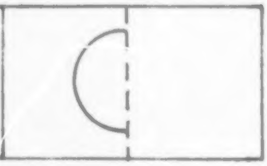


● (correct)

MATHEMATICS: GEOMETRY
(GRADE 6)

HOW SKILLS ARE TESTED

GRADE 6

OBJECTIVE

The student can apply geometric concepts.

SUBSKILLS TESTED AT GRADE 6

There is an "X" in the box next to each subskill tested in Grade 6.

☒ 1. Identification

The student can identify simple geometric shapes.

☒ 2. Labeling

The student can label geometric representations.

☐ 3. Comparison

The student can identify congruent or similar figures.

☒ 4. Application

The student can find the perimeter, area, or volume of common geometric shapes.

MATHEMATICS: GEOMETRY
(GRADE 6)

SAMPLE TEST ITEMS AND DIRECTIONS

The following test items are samples of the types administered in BSAP.

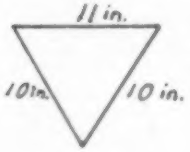
Directions for All Items:

(Student reads)

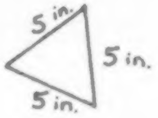
1. Solve the following problems.
2. Reduce all fractions to lowest terms.
3. Mark the letter of the correct answer on your answer sheet.

Subskill Tested: Identification and/or Labeling

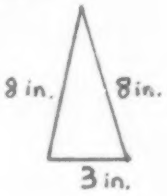
1. Which figure is an equilateral triangle?



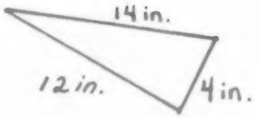
(A)



(B)
(correct)

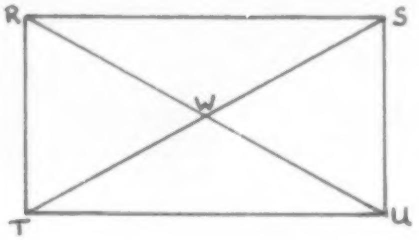


(C)



(D)

2.



In the rectangle above, $\overline{RS}$ and $\overline{TU}$ are:

(A) parallel (correct)

(B) intersecting

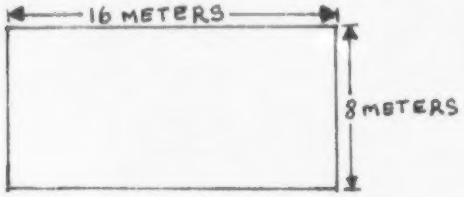
(C) perpendicular

(D) diagonal

MATHEMATICS: GEOMETRY
(GRADE 6)

SAMPLE TEST ITEMS AND DIRECTIONS (continued)

Subskill Tested: Application



The perimeter of the rectangle above is:

(A) 24 meters

(B) 32 meters

(C) 48 meters (correct)

(D) 128 meters

MATHEMATICS: GEOMETRY
(GRADE 8)

HOW SKILLS ARE TESTED

GRADE 8

OBJECTIVE

The student can apply geometric concepts.

SUBSKILLS TESTED AT GRADE 8

There is an "X" in the box next to each subskill tested in Grade 8.

☒ 1. Identification

The student can identify simple geometric shapes.

☒ 2. Labeling

The student can label geometric representations.

☒ 3. Comparison

The student can identify congruent or similar figures.

☒ 4. Application

The student can find the perimeter, area, or volume of common geometric shapes.

MATHEMATICS: GEOMETRY
(GRADE 8)

SAMPLE TEST ITEMS AND DIRECTIONS

The following test items are samples of the types administered in BSAP.

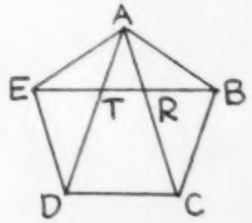
Directions for all Items

(Student reads)

1. Solve the following problems.
2. Reduce all fractions to lowest terms.
3. Mark the letter of the correct answer on your answer sheet.

Subskill Tested: Identification and/or Labeling

1.



In the figure above: ABCDE is called:

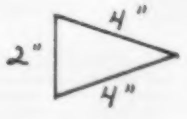
(A) a pentagon (correct)

(B) an octagon

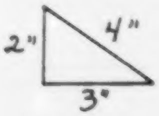
(C) a parallelogram

(D) a quadrilateral

2. Which figure is a scalene triangle?

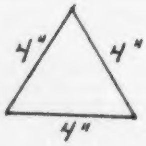


(A)

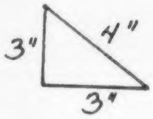


(B)

(correct)



(C)

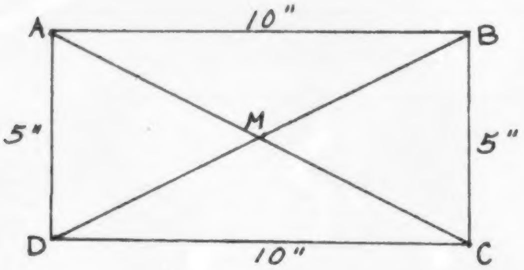


(D)

MATHEMATICS: GEOMETRY
(GRADE 8)

SAMPLE TEST ITEMS AND DIRECTIONS (continued)

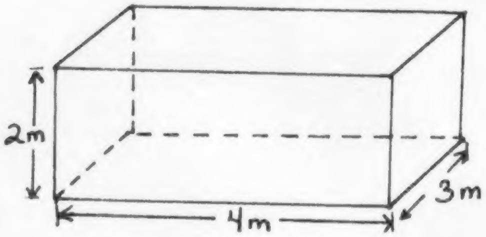
Subskill Tested: Comparison



Which triangle is congruent to $\triangle ABC$?

$\triangle DMC$	$\triangle BMA$	$\triangle CDA$	$\triangle BMC$
(A)	(B)	(C)	(D)
		(correct)	

Subskill Tested: Application



The volume of the box above is?

(A) 8 cubic meters

(B) 9 cubic meters

(C) 12 cubic meters

(D) 24 cubic meters (correct)

MATHEMATICS: GEOMETRY
(GRADES 1, 2, 3, 6, AND 8)

WHAT SOME INSTRUCTIONAL CONSIDERATIONS ARE

GRADES 1, 2, 3, 6, AND 8

Instructionally, there are some other skills that ought to be considered. Although not directly tested in BSAP, these skills are related to the overall Geometry skill and its related subskills. The skills listed below will aid students as they progress from identifying, labeling, and comparing geometric representations to using their geometric skills in applied contexts.

1. Knowledge of geometric properties (Grades 1, 2, 3, 6, and 8, as applicable).

   The student is familiar with the specific properties of each geometric figure, construction, and representation eligible for testing.

2. Comprehension of geometric vocabulary (Grades 1, 2, 3, 6, and 8, as applicable).

   The student can read the name of each geometric figure, construction, and representation eligible for testing.

3. Comprehension of comparative vocabulary (Grades 1, 2, 3, 6, and 8, as applicable).

   The student understands the terminology used to indicate geometric comparisons. This vocabulary includes "smallest," "largest," "same size," "same shape," "congruent," and "similar."

4. Recognition of symmetry (Grade 3).

   The student can visualize whether a figure is divided symmetrically.

5. Knowledge of specific formulas (Grades 6 and 8).

   The student knows the formulas for perimeter, circumference, area, and volume for the geometric figures that are eligible for testing.

MATHEMATICS: GEOMETRY
(GRADES 1, 2, 3, 6, AND 8)

WHAT ACTIVITIES MIGHT BE DEVELOPED

GRADES 1, 2, 3, 6, AND 8

Although there are clearly some instances in which a particular teaching activity would be appropriate for one grade range yet inappropriate for another, most teachers report that they can often successfully adapt an instructional activity designed for younger or older students.

The activities presented below can, with minor modifications, serve as practice for the overall geometry skill, the subskills tested, and the other related skills offered for instructional consideration.

These activities are intended only as examples to stimulate the teacher's thinking. The activities offer merely possibilities, not prescriptions.

EARLY GRADE POSSIBILITIES

Sorting and Matching

Manipulations can help students learn basic geometric concepts.

1. Use attribute blocks for a variety of activities. Students can be asked to sort the blocks according to size, shape, number of sides, number of corners, etc. The blocks can also be compared using the terms largest, smallest, same size, and same shape.

2. Students can prepare cutouts of geometric figures, then match those cutouts on many of the same dimensions as those described in step #1 above. The terms "congruent" and "similar" might also be introduced and used in sorting the cutouts.

3. Cards with a different shape drawn in each square can be made. One student holds up a block or a cutout and the others use a marker to cover that shape on their card.

Example:

△	▲	○
■	□	△
▭	●	□

MATHEMATICS: GEOMETRY
(GRADES 1, 2, 3, 6, AND 8)

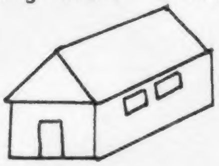
EARLY GRADE POSSIBILITIES (continued)

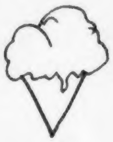
Drawing with Geometry

Students may enjoy creating geometric pictures.

1. Draw one or more geometric figures on the chalkboard. Students are to copy the shapes on their paper, then create a drawing using them. Drawings can be shared when they are completed.

   Examples:





2. As a variation, students can be asked to look carefully at a picture, then list the names of all the geometric figures they can recognize in that picture.

Symmetry

A variety of activities can help students develop their sense of symmetry.

1. Draw, then duplicate, a variety of geometric figures for students to cut out and fold.
2. Draw dotted fold lines on some figures. Ask students to predict whether the folded sides will match. Then have them verify their guess by actually folding the figures.
3. Omit fold lines on other figures and ask the students to experiment with finding them. Include figures with more than one line of symmetry, others with no lines of symmetry, and some symmetric about a point.
4. Give students lines of symmetry to work with and have them draw figures that fit those lines. Encourage students to prepare drawings based on a wide variety of figures, not just the regular geometric figures they have been studying.

EARLY GRADE POSSIBILITIES (continued)

Who Am I?

Students may enjoy the riddle-like nature of this activity designed to reinforce learning of geometric properties.

1. Begin by modeling a geometric "Who Am I?" question for students. Base the riddle on the properties of figures that have been studied in class. For example, "I have four sides. All of my sides are equal. Who am I?"

2. Once students become familiar with the riddle format, let them take turns preparing riddles for their classmates.

3. Students might be required to respond by drawing their answers, then labeling the drawing with its geometric name.

Can You Find It?

Seeking out geometric figures requires students to be familiar with the properties of those figures.

1. Divide the class into teams and assign each team a different color marker or crayon with which to record its findings.

2. Prepare sheets with the name of a single geometric figure at the top of each sheet (for example, closed curve, rectangle, etc.).

3. Give one sheet to each team. Team members are to go around the room looking for as many examples of the figure listed on their sheet as they can find. They should record on their list the name of each object they find, using their assigned color.

4. After a specified time period, teams exchange their lists. Now they are to read over what the first team did, then try to add more examples to that list. Names of objects may not be repeated.

5. Continue exchanging lists until all teams have had a chance to work on each one. At the end of the activity, the entries on each list should be verified for accuracy. After this verification, the winning team is determined by totaling up the different-colored entries to see which team recorded the most entries.

MATHEMATICS: GEOMETRY
(GRADES 1, 2, 3, 6, AND 8)

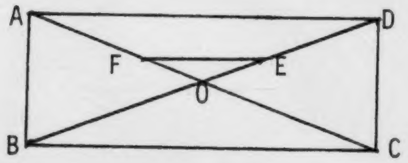
LATER GRADE POSSIBILITIES

Geometric Matching

The concepts of congruency and similarity are emphasized in this activity.

1. Prepare a series of worksheets displaying geometric diagrams of increasing complexity. Under each diagram provide a column headed CONGRUENT FIGURES and a column headed SIMILAR FIGURES.
2. Ask students to identify all pairs of congruent figures and all pairs of similar figures, then list them in the appropriate columns.
3. When students have found all of the possible congruent and similar matches on one diagram, they should progress to the next more difficult diagram.
4. The class can be stopped after a pre-specified period of time and asked to identify all matches made, in which case the student with the most correct matches wins.
5. Or the class can be asked to stop after each drawing is examined, so that matches can be discussed.

Example:

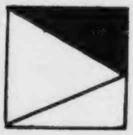


Congruent	Similar
$ABC \cong DCB$	$EOF \sim BOC$
$AOB \cong DOC$	$EOF \sim DOA$
$ABD \cong DCA$	
$AOD \cong COB$	

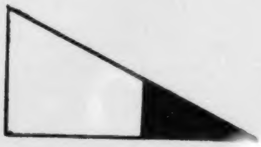
Area Investigations

These activities promote an intuitive understanding of the relationships between area formulas for various figures.

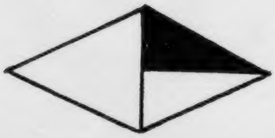
1. Have students prepare cutout figures, then arrange those figures in various ways.



Square



Triangle



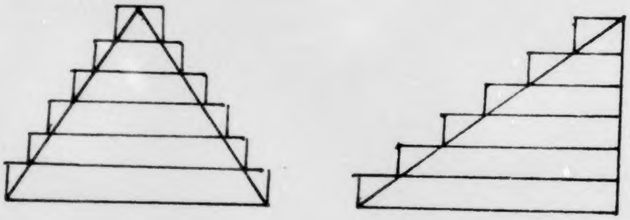
Parallelogram

MATHEMATICS: GEOMETRY
(GRADES 1, 2, 3, 6, AND 8)

LATER GRADE POSSIBILITIES (continued)

2. By measuring the dimensions of each configuration, then using formulas to compute each figure's area, students can verify that the areas are the same.

3. To show that the area of a triangle or a parallelogram does not change if the altitude and base are fixed, give students narrow strips of cardboard (1 inch wide) to approximate the area of each figure. The strips are arranged into figures similar to those below:



4. The area of either figure can be determined by laying the strips out end to end. Both figures have the same area since they are composed of the same strips.

Geometric Constructions

Students use their measurement as well as geometric skills in completing these activities.

1. Supply students with rulers, compasses, and protractors. Then give them written or oral directions to construct specified figures. (For example, draw an equilateral triangle with sides 5 inches long.) Students should label all parts of their drawings.

2. The directions given can be simple or complex, depending upon the level of the class. Students might enjoy preparing sets of directions to present as challenges to the rest of the class.

3. In order to practice the identification of coordinates, students can be given graph paper, asked to mark off a specified space, then directed to locate and label a set of points (for example, R is located at the point [2, 4] etc.).

LATER GRADE POSSIBILITIES (continued)

Formula Follies

The formulas for perimeter, area, and volume can be reviewed with this activity.

1. Provide students with a list of the formulas to be used.
2. Students are to make up word problems that can be solved by using the formulas listed. These problems may be silly ones, if desired. (For example, "George, the grape-colored giant, wanted to plant a vegetable garden with equal-sized plots for each crop. He decided to make each plot 10 miles long on a side. How much area does his corn plot cover?").
3. Students should also prepare an answer key for their problems, indicating the formula to be used for each problem as well as the problem's solution.
4. Problems can be exchanged and worked by other students, then checked against the answer key.

Which One is Wrong?

By scrutinizing geometric drawings, students review their knowledge of geometric properties.

1. Prepare and label a set of geometric drawings. These drawings should cover all the figures, constructions, and representations students have studied. Each drawing should misrepresent one property of the specified figure, construction, or representation. (For example, a right triangle may lack a right angle.)
2. Students are to indicate the error in each drawing, then correct that error.

GEOMETRY
CONTENT SUPPLEMENT
(GRADES 1, 2, 3, 6, AND 8)

GEOMETRIC FIGURES AND TERMS ELIGIBLE FOR TESTING

This list is cumulative in the sense that figures eligible for testing at Grade 1 are also fair game for Grades 2, 3, 6, and 8. Therefore, the entries for each grade are in addition to those listed at previous grade(s).

Grade 1

- circles
- curves
  - closed
  - open
- rectangles
- squares
- triangles

Grade 2

Grade 1 figures.

Grade 3

Grade 1 figures plus:
- angle
- line
- line segment
- point (inside, on, or outside a figure)
- ray

Grade 6

- angles
  - right angle
- circle
  - center
  - circumference
  - diameter
  - radius
- cone
- cube
- cylinder
- line and line segments
  - diagonal
  - equal
  - intersecting
  - parallel
  - perpendicular
- parallelogram
- points
  - intersection
  - midpoint
  - vertex
- polygons
- ray
- rhombus
- sphere
- triangles
  - equilateral
  - isoceles
  - scalene

Grade 8

Grade 6 figures plus:
- angles
  - acute
  - obtuse
  - right
  - straight
- constructions
  - bisector of an angle
  - bisector of a line segment
  - perpendicular to a line
- coordinates of a point on a grid
- hexagon
- line or angle bisector
- octagon
- pentagon
- quadrilateral
- trapezoid

GEOMETRY
CONTENT SUPPLEMENT
(GRADES 6 AND 8)

FORMULAS ELIGIBLE FOR TESTING

GRADE SIX

Perimeter

Rectangle: $P = 2l + 2w$

Square: $P = 4s$

Area

Rectangle = $A = l \times w$

Square: $A = s^2$

GRADE EIGHT

Perimeter

Polygon: P = sum of its sides

Area

Parallelogram: $A = b \times h$

Triangle: $A = \frac{1}{2}b \times h$

Circle: $A = \pi r^2$

Volume

Rectangular Prism: $V = l \times b \times h$

MATHEMATICS: PROBLEM SOLVING
(GRADES 1, 2, 3, 6, AND 8)

WHAT SKILLS ARE TESTED AND WHERE

GRADES 1, 2, 3, 6, AND 8

OBJECTIVE

The student can solve problems involving the use of mathematics.

EXPLANATION

Problem solving represents a high order intellectual skill which is central to mathematics and to other subject areas as well. The objective requires the use of previously acquired knowledge in problem-solving situations. Conceptual, operational, measurement, and geometric skills are gradually introduced. As students progress along the mathematics continuum, they must learn to apply these skills to solve problems.

SUBSKILLS TESTED BY GRADE

The problem-solving skill was not broken down into subskills for testing purposes. Therefore, the testing focuses on the total process of problem-solving. The X's in the following chart indicate at what grade levels problem-solving is tested.

SKILL TESTED	GRADES TESTED				
	1	2	3	6	8
Problem-Solving The student can solve problems involving the use of mathematics.	X	X	X	X	X

MATHEMATICS: PROBLEM SOLVING
(GRADES 1, 2, 3, 6, AND 8)

HOW SKILLS ARE TESTED

GRADES 1, 2, 3, 6, AND 8

TEST ITEM OVERVIEW

The test items for this objective consist of verbal problems based on situations that are familiar to students. The student is to compute or estimate a solution for each problem.

KEYS TO SKILL DIFFICULTY

The difficulty of the test items is varied across grade levels by changing the key characteristics of the skill.

The following chart summarizes how these variables are tested across grade levels for the skill.

MATHEMATICS: PROBLEM SOLVING
(GRADES 1, 2, 3, 6, AND 8)

SUMMARY CHART FOR
KEYS TO SKILL DIFFICULTY

KEYS TO SKILL DIFFICULTY	TESTING LIMITS				
	GRADE 1	GRADE 2	GRADE 3	GRADE 6	GRADE 8
PROBLEM SOLVING					
PROBLEM TYPES	Arithmetic.	Arithmetic.	Arithmetic, Measurement.	Arithmetic, Measurement, Geometry.	Arithmetic, Measurement, Geometry.
READ-ABILITY*	Grade 1.	Grade 1.	Grade 2 or Less.	Grade 4 or Less.	Grade 6 or Less.
METHOD OF OBTAINING DATA	Verbal text.	Verbal text.	Verbal text.	Verbal text, Pictorial display.	Verbal text, Pictorial display.
UNNECESSARY DATA	Not Allowed.	Not Allowed.	Not Allowed.	Allowed.	Allowed.
TYPES OF NUMBERS*	Whole Numbers.	Whole Numbers.	Whole Numbers.	Whole Numbers, Fractions, Mixed Numbers, Decimals.	Whole Numbers, Fractions, Mixed Numbers Decimals, Percentages.
NUMBER OF OPERATIONS	1	1	1-2	1-2	1-3
TYPES OF OPERATIONS REQUIRED	Addition, subtraction.	Addition, subtraction.	Addition, subtraction, multiplication.	Addition, subtraction, multiplication, division.	Addition, subtraction, multiplication, division.
OPERATION DIFFICULTY*	No Regrouping.	No Regrouping.	Regrouping.	Regrouping, reduction. of fractions, measurement conversions	Regrouping, reduction. of fractions, measurement conversions
TYPES OF MEASUREMENT UNITS*	Not Used.	Not Used.	Limited to a subgroup of units from Grade 3 measurement See page 87.	Eligible conversions for Grade 3 measurement See pages 87-88.	Eligible conversions for Grade 6 measurement See page 88.
TYPE OF PROBLEM SOLUTION	Exact.	Exact.	Exact.	Exact, estimated.	Exact, estimated.

* These factors are kept at a very low level at each grade.

MATHEMATICS: PROBLEM SOLVING
(GRADE 1)

HOW SKILLS ARE TESTED

GRADE 1

OBJECTIVE

The student can solve problems involving the use of mathematics.

SUBSKILLS TESTED AT GRADE 1

The problem-solving skill was not broken down into subskills for testing purposes. Therefore, the testing focuses on the total process of problem-solving.

SAMPLE TEST ITEM AND DIRECTIONS

The following test item is a sample of the types administered in BSAP.

(Teacher says) Read the problem as I read it aloud. Work the problem. (pause) Darken the bubble under your answer.

> Sue has 3¢. She gets 2¢ more. How much money does Sue have in all?

(Teacher does not read answer choices.)

1¢	3¢	5¢
○	○	●
		(correct)

MATHEMATICS: PROBLEM SOLVING
(GRADE 2)

HOW SKILLS ARE TESTED

GRADE 2

OBJECTIVE

The student can solve problems involving the use of mathematics.

SUBSKILLS TESTED AT GRADE 2

The problem-solving skill was not broken down into component subskills for testing purposes. Therefore, the testing focuses on the total process of problem-solving.

SAMPLE TEST ITEM AND DIRECTIONS

The following test item is a sample of the types administered in BSAP.

(Teacher says) Read the problem as I read it aloud. Work the problem. (pause) Darken the bubble under your answer.

Bill had 15 peanuts.
He gave 5 peanuts to Joe.
How many peanuts does Bill have left?

(Teacher does not read answer choices.)

10 peanuts	11 peanuts	20 peanuts
●	○	○
(correct)		

MATHEMATICS: PROBLEM SOLVING
(GRADE 3)

HOW SKILLS ARE TESTED
GRADE 3

OBJECTIVE

The student can solve problems involving the use of mathematics.

SUBSKILLS TESTED AT GRADE 3

The problem-solving skill was not broken down into component subskills for testing purposes. Therefore, the testing focuses on the total process of problem-solving.

SAMPLE TEST ITEM AND DIRECTIONS

The following test item is a sample of the types administered in BSAP.

(Teacher says) Read the problem as I read it aloud. Work the problem. (pause) Darken the bubble under your answer.

Sam had 10 fish.
He gave away 4 fish.
Later he ate 3 fish.
How many fish does he have now?

(Teacher does not read answer choices.)

3 fish	7 fish	13 fish
●	○	○
(correct)		

MATHEMATICS: PROBLEM SOLVING
(GRADE 6)

HOW SKILLS ARE TESTED

GRADE 6

OBJECTIVE

The student can solve problems involving the use of mathematics.

SUBSKILLS TESTED AT GRADE 6

The problem-solving skill was not broken down into component subskills for testing purposes. Therefore, the testing focuses on the total process of problem-solving.

SAMPLE TEST ITEMS AND DIRECTIONS

The following test item is a sample of the types administered in BSAP.

Directions for All Items (Exact Solution):

(Student reads)

1. Solve the following problems.
2. Reduce all fractions to lowest terms.
3. Mark the letter of the correct answer on your answer sheet.

There are 26 students in your class. The teacher picks 3 boys and 4 girls to take books to another room. Each student carries 7 books. How many books do the students take to the other room?

(A) 42 books

(B) 49 books (correct)

(C) 84 books

(D) 182 books

MATHEMATICS: PROBLEM SOLVING
(GRADE 8)

HOW SKILLS ARE TESTED

GRADE 8

OBJECTIVE

The student can solve problems involving the use of mathematics.

SUBSKILLS TESTED AT GRADE 8

The problem-solving skill was not broken down into component subskills for testing purposes. Therefore, the testing focuses on the total process of problem-solving.

MATHEMATICS: PROBLEM SOLVING
(GRADE 8)

SAMPLE TEST ITEMS AND DIRECTIONS

The following test item is a sample of the types administered in BSAP.

Directions for All Items (Exact Solution):

(Student reads)

1. Solve the following problems.
2. Reduce all fractions to lowest terms.
3. Mark the letter of the correct answer on your answer sheet.

TEEN MAGAZINE

Posters of Movie Star Favorites

Special Offer!

Five Posters for $5.75
Save $1.25 off the regular price!

Send in Now! Don't be disappointed!

Add $1.50 to your total purchase to cover postage and handling.

You decide to send away for the movie posters advertised above. You want to buy ten posters. How much money should you send in?

(A) $9.90

(B) $11.50

(C) $12.00

(D) $13.00 (correct)

MATHEMATICS: PROBLEM SOLVING
(GRADES 1, 2, 3, 6, AND 8)

WHAT SOME INSTRUCTIONAL CONSIDERATIONS ARE

(GRADES 1, 2, 3, 6, AND 8)

Instructionally, there are some other skills that ought to be considered. Although not directly tested in BSAP, these skills are related to the overall problem solving skill and its related subskills. Problem solving requires that students go through a series of processes which may include, but not necessarily be limited to, the following.

1. Analyzing the problem situation.

   The students must carefully read and comprehend the conditions set forth by the problem. For example, students may need the following skills:

   a. Determining "what is to be solved".

   b. Interpreting pictorial displays such as graphs, tables, or charts.

   c. Identifying numerical quantities or data.

   Of course, this necessitates the student's understanding of the vocabulary used. In BSAP, since the vocabulary level was kept low and since reading and mathematics word lists are available, students should not have difficulty reading the problems.

2. Making decisions about the conditions set forth in the problem.

   Once the student has identified key elements of the problem situation, the student must make certain decisions. For example, the student may need to use the following skills:

   a. Determining which data are necessary for solving the problem and which are not.

   b. Determining what operations are necessary and in what sequence to use these operations.

MATHEMATICS: PROBLEM SOLVING
(GRADES 1, 2, 3, 6, AND 8)

WHAT SOME INSTRUCTIONAL CONSIDERATIONS ARE (continued)

3. Devising a plan for answering the question posed by the problem.

   The student may need to devise a strategy for solving the problem. Different strategies can result in the correct solution to a problem. For example, a student may decide to add a quantity to itself 5 times rather than multiply the quantity by five.

   Consider a problem such as: "If all men wear pants and I wear pants, am I a man?". A student may be able to "see" the solution immediately with no planned strategy at all. Another student may decide to apply principles of logic using a chart.

4. Applying previously-acquired mathematical abilities to the calculation of a precise or approximate solution.

   Students may need to apply previously learned conceptual, operation, measurement, and geometric skills in determining the solution. For example, the student may need to use the formula for area of a rectangle and measurement conversions in determining how much paint is necessary to cover a wall.

   In particular as part of BSAP students may need to be able to apply the following previously learned skills:

   a. Estimating to determine estimated solutions (Grades 6 and 8).

   b. Accurately performing arithmetic operations (Grades 1, 2, 3, 6, and 8).

   c. Knowing measurements units, abbreviations, and conversions (Grades 3, 6, and 8).

   d. Using arithmetic or geometric formulas (Grades 6 and 8).

5. Judging the appropriateness or feasibility of the proposed solution.

   After the student has computed the numerical solution to the problem, he/she should judge whether or not the answer is reasonable. Is the answer too large? too small? or about the size expected? For this purpose, two related skills may prove useful:

   a. Rounding.

   b. Estimating.

Some problems requiring unique solutions do not fit the pattern above. Teachers are encouraged to include such problems as brain teasers, "thought problems," etc.- in their instructional program. Because of limitations on testing, the emphasis is not on these types of problems in the basic skills tests.

MATHEMATICS: PROBLEM SOLVING
(GRADES 1, 2, 3, 6, AND 8)

WHAT ACTIVITIES MIGHT BE DEVELOPED

GRADES 1, 2, 3, 6, AND 8

Although there are clearly some instances in which a particular teaching activity would be appropriate for one grade range yet inappropriate for another, most teachers report that they can often successfully adapt an instructional activity designed for younger or older students.

The activities presented below can, with minor modifications, serve as practice for the overall problem solving skill, the subskills tested, and the other related skills offered for instructional consideration.

These activities are intended only as examples to stimulate the teacher's thinking. The activities offer merely possibilities, not prescriptions.

EARLY GRADE POSSIBILITIES

Story Time

1. Supply a mathematical sentence to the students. At first, these sentences might be completed expressions, for example: 2 + 5 = 7. Later, open sentences might be used; for example 16 - ___ = 8.
2. Ask individual students or the class as a whole to make up a story to go along with that sentence. Students may enjoy creating as many different situations as they can for each sentence, trying to be as imaginative as possible in the situations they devise.
3. Share the story problems with another class or use them at another time during the year as practice problems to be solved.

MATHEMATICS: PROBLEM SOLVING
(GRADES 1, 2, 3, 6, AND 8)

EARLY GRADE POSSIBILITIES (continued)

Drawing It Out

This activity will help students translate words into mathematical expressions. Have students create "story boards" for problems they are solving. These story boards can be posted for the rest of the class to see.

1. Begin with a sheet of blank paper divided into "story frames" or squares.

2. Read aloud the first part of the problem and let students complete the first frame of their story. For example, if the first sentence in a problem states, "Jim won ten balloons," then the first frame in the story might show a person with ten balloons.

3. Continue with the rest of the problem in sequence, first reading a portion and then allowing students to draw that part.

4. When students have completed one or more teacher-guided story boards, they may enjoy doing some of their own. Let students devise their own problems and illustrate them. Then story boards could be exchanged and other students asked to compose the verbal problem that they think corresponds to the story board.

Acting It Out

Students will benefit from problem-solving practice presented in as many different modes as possible. One variation involves the oral presentation of problems. Students can work together in small groups.

1. Each group makes up a problem and then devises a way to dramatize that problem. Students may enjoy using costumes and props for their presentations, or perhaps planning a presentation entirely in mime.

2. Each group in turn performs its problem for the others in the class.

3. The other students then solve the problem and compare their solutions with the solution previously prepared by the performing group.

EARLY GRADE POSSIBILITIES (continued)

Emergency!

Students can be organized into rescue teams. These teams might be medical teams or, perhaps, inter-galactic space teams sent out to rescue stranded space travelers. In its various forms, this particular activity provides students practice not only in solving actual problems but also in approaching the various steps in the problem-solving process from several different perspectives.

1. Devise a variety of incomplete problems that need rescue efforts to make them complete.
    a. One kind of emergency situation involves problems that are missing their last sentence. The rescue squad must find that sentence and then solve the entire problem to make sure their victim has been helped.
    b. Another kind of emergency involves answers that have lost their problem. Now the rescue teams must organize a search party to locate their victims; that is, they must compose a problem that could result in the solution they have been given.
    c. Still other rescue missions can be centered around problems that have lost their data (that is, generalized problems that need specific numbers added) and problems that have lost their explanations (that is, mathematical sentences that have lost their words).
2. Let rescue teams compare their results to each problem type.

MATHEMATICS: PROBLEM SOLVING
(GRADES 1, 2, 3, 6, AND 8)

LATER GRADE POSSIBILITIES

Easy to Hard

This activity should help students realize that "hard numbers" don't necessarily mean a hard problem. It also should help careless students pay more attention to detail. Such students may be able to solve the easier version of problems with ease, only to make computational errors in solving the harder versions.

1. In order to increase students' self-confidence as problem solvers, prepare two versions of a verbal problem.

   For example, both versions describe the same situation and use the same words. Only the numerical data vary between version one and version two. The first version contains very simple numbers; the second version contains larger, more difficult numbers.

2. Have students arrive at a solution strategy for solving the first version of a problem.

3. Have students check their answers.

4. Then have students apply that same strategy to the problem's second version.

Tournament of Champions

This strategy allows students to practice their problem-solving skills in other than a pencil and paper exercise format.

1. Divide the class into three teams.

2. In preparation for competing in the tournament, allow each team time to practice separately with a set of cards containing word problems similar to those tested by this objective.

3. After the teams feel adequately prepared, begin the tournament.

   a. Three players, one from each team, compete against each other.

   b. A set of cards with similar problems to those used during the practice sessions is placed face down in the front of the three players.

   c. The first player turns over the top card and reads the problem aloud.

   d. Each player works out an answer.

   e. The first player offers a solution.

   f. If the solution is correct, that player keeps the card as a scoring token. If the solution is incorrect, the first opponent to challenge the answer and have the correct solution wins the scoring token.

MATHEMATICS: PROBLEM SOLVING
(GRADES 1, 2, 3, 6, AND 8)

LATER GRADE POSSIBILITIES (continued)

4. After the first three players have completed their problems, let three new players come up to compete.

5. Continue play until all students have had at least one opportunity to play.

Difficulty Mountain

Have students monitor the difficulty levels of various verbal problems assigned to the class during the course of a semester or an entire year. A problem's difficulty level equals the number of students who cannot solve the problem correctly.

1. Have the class construct a ladder of increasingly difficult problems.

2. At the end of the semester or the year a clearly differentiated set of problems exists. Share these problems with another class as a challenging exercise for other students who want to demonstrate how high on the Difficulty Mountain they can climb.

To Tell The Truth

This activity is especially useful in helping students use pictorial data to solve problems.

1. Divide students into work groups.

2. Let each group survey the entire class on some topic or question.

    a. A group may decide to collect demographic information: the number and ages of brother and sisters in each student's family, how far students live from school, etc.

    b. Or a group may want to survey classmates' opinions with questions such as "What is your favorite food?".

3. Have each work group prepare some sort of visual display to depict the data they have collected. This display might be a table or chart or a graph of some type.

4. When the displays are completed have each group prepare several word problems that can be solved using its display.

5. Let other members of the class then solve these problems.

LATER GRADE POSSIBILITIES (continued)

Measurement

This activity is useful in helping students apply measurement concepts to problem-solving.

1. Supply students with access to as many different measuring devices as possible (clocks, rulers, thermometers, measuring cups, etc.).
2. Have each student take one or more measurements with the device he or she has, and then devise problems using those measurements.
3. After each student has had a chance to work with each measuring device, let students exchange the problems that they have written.